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Galaxy

SCIENCE FICTION

THUNDERHEAD

by
Keith Laumer



THE PURPOSE OF LIFE

by
Hayden Howard



YOU MEN OF VIOLENCE

by
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by
Christopher Anvil



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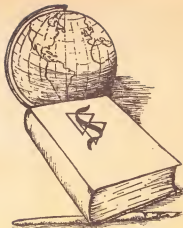
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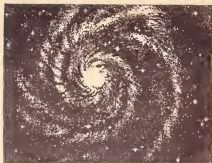
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Editor

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Science Editor

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ROBERT M. GUINN

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DAVID PERTON

Production Manager

LAWRENCE LEVINE ASSOC.

Advertising

MAVIS FISHER

Circulation Director

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Even allowing for moonlighting, that seems unlikely; and that's one of the things wrong with straight-line prediction as a form of peering into the future.

As a matter of fact, in this particular branch of crystal-ball gazing called science fiction we've just about given up straight-line predictions except for farce, because naturally the results of any continued curve is pretty ludicrous. What we do, instead of predicting — and we do it pretty well — is model-making. We say, "If A, then B." "A" need not be very likely in itself; it may be such an improbable assumption as an invasion by ant-men from Betelgeuse or a discovery of a way to travel through the fourth

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dimension. But the rules of the game are such that "B" should follow rigorously and inevitably from it, and the more "background noise" that is included in determining "B", the more cross-fertilization from whatever other events and tendencies the author can cope with, the more elegant and interesting the model—the science-fiction story, that is—is likely to be.

Of course, that's not the only kind of science-fiction story there is; as a general proposition, any statement beginning "a science-fiction story is . . ." is false. But science-fiction does have a special place in the hearts of many persons, because it is the "model-making literature"—the only field of imaginative writing that can describe events affecting anyone, in any place, at any time.

The special advantage of model-making over the more traditional methods of looking into the future is that the model-maker can allow for breakthroughs, surprises, unanticipated events.

The old adage says that "coming events cast their shadows before" . . . and so they do, if you're talking about next week's stock-market reports, or next year's arms budget. But the really big events in human history may

very well not. It was impossible to "predict" electronics, radar, television and so on more than a century ago, because it wasn't until Hertz that there was any suspicion of an RF form of energy. And that's the special talent of science-fiction: to predict the intrinsically unpredictable . . .

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— THE EDITOR

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Thunderhead

by KEITH LAUMER

Illustrated by MORROW

*Carnaby had a duty, and it was
more important to him than his
reputation — or even his life!*

I

Carnaby folded his cards without showing them, tossed them into the center of the table.

"Time for me to make my TX." He pushed back his chair and rose, a tall, wide-shouldered, gray-haired man, still straight-backed, but thickening through the body now. "It's just as well. You boys pretty well cleaned me out for tonight."

"You still got the badge," a big-faced man with quick, sly eyes said. "Play you a hand of showdown for it."

Carnaby rubbed a thumb across the tiny jeweled comet in his lapel and smiled slightly. "Fleet property, Sal," he said.

The big-faced man showed a glint of gold tooth, flicked his eyes at the others. "Yeah," he said. "I guess I forgot." He winked at a foxy man on his left.

"Say, uh, any promotions come through yet?" He was grinning openly at Carnaby now.

"Not yet." Carnaby pushed his chair in.

"Twenty-one years in grade," Sal said genially. "Must be some kind of record." He took out a toothpick and plied it on a back tooth.

"Shut up, Sal," one of the other men said. "Leave Jimmy make his TX."

"All these years, with no transfer, no replacement," Sal persisted. "Not even a letter from home. Looks like maybe they forgot you're out here, Carnaby."

"It's not Jim's fault if they don't get in touch," a white-haired man said. "Meantime, he's carrying out his orders."

"Some orders." Sal lolled back in his chair. "Kind of makes a man wonder if he ever really had any orders."

"I seen his orders myself, the day the cruiser dropped him in here," the white-haired man said. "He was to set up the beacon station and man it until he was relieved. It ain't his fault if they ain't been back for him."

"Ycah." Sal shot a hard glance at the speaker. "I know you 'claim?'"

The white-haired man frowned. "What do you mean, 'claim?'"

"Take it easy, Harry." Carnaby

caught the big-faced man's eyes, held them. "He didn't mean anything — did you, Sal?"

Sal looked at Carnaby for a long moment. Then he grunted a laugh and reached to rake in the pot. "Nah, I didn't mean anything."

A cold wind whipped at Carnaby as he walked alone past the half-dozen ramshackle stores. They comprised the business district of the single surviving settlement on the frontier planet, Longone.

At the foot of the unpaved street a figure detached itself from the shadow under a pole-mounted light.

"Hello, Lieutenant Carnaby," a youthful voice greeted him. "I been waiting for you."

"Hello, Terry." Carnaby swung his gate open. "You're out late."

"I been working on my Blue codes, Lieutenant." The boy followed him up the path, describing the difficulties he had encountered in mastering Fleet cryptographic theory. Inside the modest bungalow, Carnaby went into the small room he used as an office, took the gray dust-cover from the compact, Navy issue VFP transmitter set up on a small desk beside a rough fieldstone fireplace. He settled himself in the chair before it with a sigh, flicked on the SEND and SCR switches,

studied the half dozen instrument faces, carefully noted their readings in a dark blue polyon-backed notebook.

The boy stood by as Carnaby depressed the tape key which would send the recorded call letters of the one-man station flashing outward as a shaped wave-front, propagated at the square speed of light.

"Lieutenant." The boy shook his head. "Every night you send out your call. How come you never get an answer?"

Carnaby shook his head. "I don't know, Terry. Maybe they're too busy fighting the Djann to check in with every little JN beacon station on the Outline."

"You said after five years they were supposed to come back and pick you up," the boy persisted. "Why —"

There was a sharp, wavering tone from the round, wire-mesh covered speaker. A dull red light winked on, blinked in a rapid flutter, settled down to a steady glow. The audio signal firmed to a raucous buzz.

"Lieutenant!" Terry blurted. "Something's coming in!"

For a moment Carnaby sat rigid. Then he thumbed the big S-R key to receive, flipped the selector lever to UNSC, snapped a switch tagged RCD.

"...riority, to all stations,"

a voice faint with distance whispered through a rasp and crackle of star-static. "*Cincsec One-two-oh to . . . Cincfleet Nine . . . serial one-oh-four . . . stations copy . . . Terem Aldo . . . Terem . . . pha . . . this message . . . two . . . Part One . . .*"

"What is it, Lieutenant?" The boy's voice broke with excitement.

"A Fleet Action signal," Carnaby said tensely. "An all-station, recorded. I'm taping it; if they repeat it a couple of times, I'll get it all."

They listened, heads close to the speaker grille; the voice faded and swelled. It reached the end of the message, began again: "Red priority . . . tions . . . incsec One two . . ."

The message repeated five times; then the voice ceased. The wavering carrier hum went on another five seconds, cut off. The red light winked out. Carnaby flipped over the SEND key, twisted the selector to VOC-SQ.

"JN 37 Ace Trey to Cincsec One-two-oh," he transmitted in a tense voice. "Acknowledging receipt Fleet TX 104. Request clarification."

Then he waited, his face taut, for a reply to his transmission, which had been automatically taped, condensed to a one-micro-second squawk, and repeated ten times at one second intervals.

Carnaby shook his head after

a silent minute had passed. "No good. From the sound of the Fleet beam, Cincsec One-two-oh must be a long way from here."

"Try again, lieutenant! Tell 'em you're here, tell 'em it's time they came back for you! Tell 'em —"

"They can't hear me, Terry." Carnaby's face was tight. "I haven't got the power to punch across that kind of distance." He keyed the playback. The filtered composite signal came through clearly now:

"Red priority to all stations. Cincsec One-two-oh to Rim HQ via Cincfleet Nine-two. All Fleet Stations copy. Pass to Terem Aldo Cerise, Terem Alpha Two and ancillaries. This message in two parts. Part one: CTF Forty-one reports breakthrough of Djann armed tender on standard vector three-three-seven, mark; three-oh-five, mark; oh-four-two. This is a Category One Alert. Code G applies. Class Four through Nine stations stand by on Status Green. Part Two. Inner Warning Line units divert all traffic lanes three-four through seven-one. Outer Beacon Line stations activate main beacon, pulsing code schedule gamma eight. Message ends. All stations acknowledge."

"What's all that mean, Lieutenant?" Terry's eyes seemed to bulge with excitement.

"It means I'm going to get some exercise, Terry."

"Exercise how?"

Carnaby took out a handkerchief and wiped it across his forehead. "That was a general order from Sector Command. Looks like they've got a rogue bogie on the loose. I've got to put the beacon on the air."

He turned to look out through the curtained window beside the bookcase toward the towering ramparts of the nine-thousand-foot volcanic freak known as Thunderhead, gleaming white in the light of the small but brilliant moon. Terry followed Carnaby's glance.

"Gosh, Lieutenant! You mean you got to climb Old Thunderhead?"

"That's where I set the beacon up, Terry," Carnaby said mildly. "On the highest ground around."

"Sure — but your flitter was working then!"

"It's not such a tough climb, Terry. I've made it a few times, just to check on things." He was studying the rugged contour of the moonlit steep, which resembled nothing so much as a mass of snowy cumulus. There was snow on the high ledges, but the wind would have scoured the east face clear . . .

"Not in the last five years,

you haven't, Lieutenant!" Terry sounded agitated.

"I haven't had a Category One Alert, either," Carnaby smiled.

"Maybe they didn't mean you," Terry said.

They called for Outer Beacon Line stations. That's me."

"They don't expect you to do it on foot," Terry protested. "This time o' year!"

Carnaby looked at the boy, smiling slightly. "I guess maybe they do, Terry."

"Then they're wrong!" Terry's thin face looked pale. "Don't go, Lieutenant!"

"It's my job, Terry. It's what I'm here for. You know that."

"What if you never got the message?" Terry countered.

"What if the radio went on the blink, like all the rest of the stuff you brought in here with you — the flutter, and the food unit, and the scooter? Then nobody'd expect you to get yourself killed!"

The boy whirled suddenly. He grabbed up a poker from the fireplace, swung it against the front of the communicator, brought it down a second time before Carnaby caught his arm.

"You shouldn't have done that, Terry," he said softly. His eyes were on the smashed instrument faces.

"That . . . hurts . . ." the lad gasped.

"Sorry." Carnaby released the

boy's thin arm. He stooped, picked up a fragment of a broken name-plate with the words FLEET SIGNAL ARM.

Terry stared at him; his mouth worked as though he wanted to speak, but couldn't find the words. "I'm going with you," he said at last.

Carnaby shook his head. "Thanks, Terry. But you're just a boy. I need a man along on this trip."

Terry's narrow face tightened. "Boy, hell," he said defiantly. "I'm seventeen!"

"I didn't mean anything, Terry. Just that I need a man who's had some trail experience."

"How'm I going to get any trail experience, Lieutenant, if I don't start sometime?"

"Better to start with an easier climb than Thunderhead," Carnaby said gently. "You better go along home now, Terry. Your uncle will be getting worried."

"When . . . when you leaving, Lieutenant?"

"Early. I'll need all the daylight I can get to make Halliday's Roost by sundown."

II

After the boy had gone, Carnaby went to the storage room at the rear of the house and checked over the meager store of issue supplies. He exam-

ined the cold suit, shook his head over the brittleness of the wiring. At least it had been a loose fit; he'd still be able to get into it.

He left the house then, walked down to Maverik's store. The game had broken up, but half a dozen men still sat around the old hydrogen space heater. They looked up casually.

"I need a man," Carnaby said without preamble. "I've got a climb to make in the morning."

"What's got into you?" Yank Pepper rocked his chair back, glanced toward Sal Maverik. "Never knew you to go in for exercises before breakfast."

"I got an Alert Signal just now," Carnaby said. "From a Fleet unit in Deep Space. They've scared up a Djann blockade-runner. My orders are to activate the beacon."

Maverik clattered a garbage can behind the bar. "Kind of early in the evening for falling out of bed with a bad dream, ain't it?" he inquired loudly.

"You got a call in from the Navy?" The white-haired man named Harry frowned at Carnaby. "Hell, Jimmy, I thought. . ."

"I just need a man along to help me pack gear as far as Halliday's Roost. I'll make the last leg alone."

"Ha!" Pepper looked around. "That's all; just as far as Halliday's Roost!"

THUNDERHEAD

"You gone nuts, Carnaby?" Sal Maverik growled. "Nobody in his right mind would tackle that damned rock after first snow, even if he had a reason."

"Halliday's hut ought to still be standing," Carnaby said. "We can overnight there, and —"

"Jimmy, wait a minute," Harry said. "All this about orders, and climbing old Thunderhead; it don't make sense! You mean after all these years they pick you to pull a damn fool stunt like that?"

"It's a general order to all Outer Line stations. They don't know my flutter's out of action."

Harry shook his head. "Forget it, Jimmy. Nobody can make a climb like that at this time of year."

"Fleet wants that beacon on the air," Carnaby said. "I guess they've got a reason; maybe a good reason."

Maverik spat loudly in the direction of a sand-filled can. "You're the one's been the big-shot Navy man for the last twenty years around here," he said. "The big man with the fancy badge. Okay, your brass want you to go run up a hill, go ahead. Don't come in here begging for somebody to do your job for you."

"Listen, Jim," Harry said urgently. "I remember when you

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first came here, a young kid in your twenties, fresh out of the Academy. Five years you was to be here; they've left you here to rot for twenty! Now they come in with this piece of tomfoolery. Well, to hell with 'em! After five years, all bets were off. You got no call to risk your neck —"

"It's still my job, Harry."

Harry rose and came over to Carnaby. He put a hand on the big man's shoulder. "Let's quit pretending, Jim," he said softly. "They're never coming back for you, you know that. The high tide of the Concordiat dropped you here. For twenty years the traffic's been getting sparser, the transmitters dropping off the air. Adobe's deserted now, and Petreac. Another few years and Longone'll be dead, too."

"We're not dead yet."

"That message might have come from the other end of the galaxy, Jim! For all you know, it's been on the way for a hundred years!"

Carnaby faced him, a big, solidly-built man with a lined face. "You could be right on all counts," he said. "It wouldn't change anything."

Harry sighed, turned away. "If I was twenty years younger, I might go along, just to keep you company, Jimmy. But I'm not. I'm old."

He turned to face Carnaby.

"Like you, Jim. Just too old."

"Thanks anyway, Harry." Carnaby looked at the other men in the room, nodded slowly. Sal's right," he said. "It's my lookout, and nobody else's." He turned and pushed back out into the windy street.

Aboard the Armed Picket *Mal-
thusa*, five million tons, nine months out of Fleet HQ on Vandiemann's World on a routine Deep Space sweep, Signal-Lieutenant Pryor, Junior Communications Officer on message deck duty, listened to the playback of the brief transmission the Duty NCOIC had called to his attention:

"*JN37 Ace Trey to Cincsec One . . . Fleet TX . . . clarification*," the voice came through with much crackling.

"That's all I could get out of it, Lieutenant," the signalman said. "I wouldn't have picked it up, if I hadn't been filtering the Y band looking for AK's on 104."

The officer punched keys, scanning a listing that flashed onto the small screen on his panel.

"There's no JN37 Ace Trey listed, Charlie," he said. He keyed the playback, listened to the garbled message again.

"Maybe it's some outworld sheep-herder amusing himself."

"With WFP equipment? On Y channel?" The NCO furrowed his forehead.

"Yeah." The lieutenant frowned. "See if you can get back to him with a station query, Charlie. See who this guy is."

"I'll try, sir; but he came in with six millisec lag. That puts him halfway from here to Rim."

The lieutenant crossed the room with the NCO, stood by as the latter sent the standard Confirm ID code. There was no reply.

"I guess we lost him, sir. You want me to log him?"

"No, don't bother."

The big repeater panel chattered then, and the officer hurried back to his console, settled down to the tedious business of transmitting follow-up orders to the fifty-seven hundred Fleet Stations of the Inner Line.

III

The orange sun of Longone was still below the eastern horizon when Carnaby came out the gate to the road. Terry Sickle was there, waiting for him.

"You got to get up early to beat me out, Lieutenant," he said in a tone of forced jocularity.

"What are you doing here, Terry?"

"I heard you still need a man," the lad said, less cocky now.

Carnaby started to shake his head, and Terry cut in with: "I can help pack some of the gear you'll need to try the high slope."

"Terry, go on back home, son. That high slope's no place for you."

"How'm I going to qualify for the Fleet when your ship comes, Lieutenant, if I don't start getting some experience?"

"I appreciate it, Terry. It's good to know I have a friend. But —"

"Lieutenant — what's a friend, if he can't help you when you need it?"

"I need you here when I get back, to have a hot meal waiting for me, Terry."

"Lieutenant" All the spring had gone from the boy's stance. "I've known you all my life. All I ever wanted was to be with you on Navy business. If you go up there, alone"

Carnaby looked at the boy, the dejected slump of his thin shoulders.

"Your uncle know you're here, Terry?"

"Sure. Uh, he thought it was a fine idea, me going with you."

"All right, then, Terry, if you want to. As far as Halliday's Roost. Thanks."

"Oh, boy, Lieutenant! We'll have a swell time. I'm a good climber, you'll see!" He grinned

from ear to ear, squinting through the early gloom at Carnaby.

"Hey, Lieutenant, you're rigged out like a real . . ." he broke off. "I thought you'd oh, wore out all your issue gear," he finished lamely.

"Seemed like for this trek I ought to be in uniform," Carnaby said. "And the coldsuit will feel good, up on the high slopes."

The two moved off down the dark street. There were lights on in Sal Maverik's general store. The door opened as they came up; Sal emerged, carrying a flour sack, his mackinaw collar turned up around his ears. He grunted a greeting, then swung to stare at Carnaby.

"Hey, by God! Look at him, dressed fit to kill!"

"The lieutenant got a hot-line message in from Fleet Headquarters last night," Terry said.

"We got no time to jaw with you, Maverik." He brushed past the heavy-set man.

"You watch your mouth, boy," Sal snapped. "Carnaby," he raised his voice, "this poor kid the best you could get to hold your hand?"

"What do you mean, poor kid?" Terry started back. Carnaby caught his arm.

"We're on official business, Terry," he said. Eyes front and keep them there."

"Playing Navy, hah? That's a hot one," the storekeeper called after the two. "What kind of orders you get? To take a goony-bird census, up in the foothills?"

"Don't pay him no attention, Lieutenant," Terry said, his voice unsteady. "He's as full of meanness as a rotten meal-spud is of weevils."

"He's had some big disappointments in his life, Terry. That makes a man bitter."

"I guess you did, too, Lieutenant. It ain't made *you* mean." Terry looked sideways at Carnaby. "I don't reckon you beat out the competition to get an Academy appointment and then went through eight years of training just for this." He made a gesture that took in the sweep of the semi-arid landscape stretching away to the big world's far horizon, broken only by the massive outcroppings of the pale, convoluted lava cores spaced at intervals of a few miles along a straight fault line that extended as far as men had explored the desolate world.

Carnaby laughed softly. "No, I had big ideas about seeing the galaxy, making Fleet Admiral, and coming home covered with gold braid and glory."

"You leave any folks behind, Lieutenant?" Terry inquired, waxing familiar in the comradeship of the trail.



THUNDERHEAD

"No wife. There was a girl. And my half-brother, Tom. A nice kid. He'd be over forty, now."

"Lieutenant — I'm sorry I busted up your transmitter. You might have got through, gotten yourself taken off this God-forsaken place —"

"Never mind, Terry."

The dusky sun was up now, staining the rounded, lumpy flank of Thunderhead a deep scarlet.

Carnaby and Sickie crossed the first rock-slope, entered the broken ground where the prolific rock-lizards eyed them as they approached, then heaved themselves from their perches, scuttled away into the black shadows of the deep crevices opened in the porous rock by the action of ten million years of wind and sand erosion on thermal cracks.

Five hundred feet above the plain, Carnaby looked back at the settlement. Only a mile away, it was almost lost against the titanic spread of empty wilderness.

"Terry, why don't you go back now?" he said. "Your uncle will have a nice breakfast waiting for you."

"I'm looking forward to sleeping out," the boy said confidently. "We better keep pushing, or we won't make the Roost by dark."

In the officers' off-duty bay, Signal-Lieutenant Pryor straightened from over the billiard table as the nasal voice of the command deck yeoman broke into the recorded dance music:

"Now hear this. Commodore Broadly will address ship's company."

"Ten to one he says we've lost the bandit." Supply-lieutenant Aaron eyed the annunciator panel.

"Gentlemen." The sonorous tones of the ship's commander sounded relaxed, unhurried. "We now have a clear track on the Djann blockade runner, which indicates he will attempt to evade our Inner Line defenses and lose himself in Rim territory. In this I propose to disappoint him. I have directed Colonel Lancer to launch interceptors to take up stations along a conic, subsuming thirty degrees on axis from the presently constructed vector. We may expect contact in approximately three hours time."

A recorded bos'n's whistle shrilled the end-of-message signal.

"So?" Aaron raised his eyebrows. "A three-million tonner swats a ten-thousand-ton sideboat. Big deal."

"That boat can punch just as big a hole in the blockade as a Super-D," Pryor said. "Not that the Djann have any of those left to play with."

"We kicked the damned spiders back into their home system ten years ago," Aaron said tiredly. "In my opinion, the whole Containment operation's a boondoggle to justify a ten-million-man fleet."

"As long as there are any of them alive, they're a threat," Pryor repeated the slogan.

"Well, Broadly sounds as though he's got the bogie in the bag," Aaron yawned.

"Maybe he has." Pryor addressed the ball carefully, sent the ivory sphere cannoning against the target.

"He wouldn't go on record with it if he didn't think he was on to a sure thing."

"He's a disappointed 'ceptor-jockey. What makes him think that pirate don't duck back of some kind of a blind spot and go dead?"

"It's worth a try — and if he nails it, it will be a feather in his cap."

"Another star on his collar, you mean."

"Uh-huh, that too."

"We're wasting our time," Aaron said.

"But that's his look out. Six ball in the corner pocket."

As Commodore Broadly turned away from the screen on which he had delivered his position report to the crew of the great war vessel, his eye met that of his executive officer. The latter shifted his gaze uneasily.

"Well, Roy, you expect me to announce to all hands that Cincfleet has committed a major blunder letting this bandit slip through the picket line?" he demanded with some asperity.

"Certainly not, sir." The officer looked worried. "But in view of the seriousness of the break out"

"There are some things better kept in the highest command channels," the commodore said shortly. "You and I are aware of the grave consequences of a new release of their damned seed in an uncontaminated sector of the Eastern Arm. But I see no need to arouse the parents, aunts, uncles and cousins of every apprentice technician aboard in an overly candid disclosure of the facts!"

"I thought Containment had done its job by now," the captain said. "It's been three years since the last Djann sighting outside the Reservation. It seems we're not the only ones who're keeping things under our hats."

Broadly frowned. "Mmmm. I agree, I'm placed at something of a disadvantage in my tactical

planning by the over-secretiveness of the General Staff. However, there can be no two opinions as to the correctness of my present course."

The exec glanced ceilingward. "I hope so, sir."

"Having the admiral aboard makes you nervous, does it, Roy?" Broadly said in a tone of heartiness. "Well, I regard it merely as an opportunity better to display *Malthusa's* capabilities!"

"Commodore, you don't think it would be wise to coordinate with the admiral on this —"

"I'm in command of this vessel," Broadly said sharply. "I'm carrying the vice-admiral as supercargo, nothing more!"

"He's still Task Group CINC"

"I'm comming this ship, Roy, not Old Carbuncle!" Broadly rocked on his heels, watching the screen where a quadrangle of bright points representing his interceptor squadron fanned out, on an intersecting course with the fleeing Djann vessel. "I'll pinch off this break-through single-handed; and all of us will share in the favorable attention the operation will bring us!"

In his quarters on the VIP deck, the vice-admiral studied the Utter Top Secret dispatch which had been handed to him

five minutes earlier by his staff signal-major.

"It looks as though this is no ordinary boatload of privateers." He looked soberly at the elderly communicator. "They're reported to be carrying a new weapon of unassessed power and a cargo of spore-racks that will knock Containment into the next continuum."

"It doesn't look good, sir." The major wagged his head.

"I note that the commodore has taken action according to the manual." The admiral's voice was non-committal.

The major frowned. "Let's hope that's sufficient, Admiral."

"It should be. The bogie's only a converted tender. She couldn't be packing much in the way of fire power in that space, secret weapon or no secret weapon."

"Have you mentioned this aspect to the commodore, sir?"

"Would it change anything, Ben?"

"Nooo. I suppose not."

"Then we'll let him carry on without any more cause for jumpiness than the presence of a vice-admiral on board is already providing."

Crouched in his fitted acceleration cradle aboard the Djann vessel, the One-Who-Commands studied the motion of the charged molecules in the sensory tank.

"Now the Death-Watcher dispatches his messengers," he communed with the three link-brothers who formed the Chosen Crew. "Now is the hour of the testing of Djann."

"Profound is the rhythm of our epic," the One-Who-Records sang out. "We are the Chosen-to-Be-Heroic, and in our tiny cargo, Djann lives still, his future glory inherent in the convoluted spores!"

"It was a grave risk to put the destiny of Djann at hazard in this wild gamble," the One-Who-Refutes reminded his link-brothers. "If we fail, the generations yet unborn will slumber on in darkness or perish in ice or fire."

"Yet if we succeed! If the New Thing we have learned serves well its function — then will Djann live anew!"

"Now the death-messengers of the Water-Being approach," the One-Who-Commands pointed out. "Link well, brothers! The energy-aggregate waits for our directing impulse. Now we burn away the dross of illusions from the hypothesis of the theorists in the harsh crucible of reality!"

"In such a fire, the flame of Djann coruscates in unparalleled glory!" the One-Who-Records exulted. "Time has ordained this conjunction to try the timbre of our souls!"

"Then channel your trained faculties, brothers." The One-Who-Commands gathered his forces, feeling out delicately to the ravening nexus of latent energy contained in the thought-shell poised at the center of the stressed-space field enclosing the fleeting vessel. "Hold the sacred fire sucked from the living bodies of a million of our fellows," he exhorted. "Shape it and hurl it in well-directed bolts at the death-bringers, for the future and glory of Djann!"

V

At noon, Carnaby and Sickle rested on a nearly horizontal slope of rock that curved to meet the vertical wall that swelled up and away overhead. Their faces and clothes were gray with the impalpable dust whipped up by the brisk wind. Terry spat grit from his mouth, passed a can of hot stew and a plastic water flask to Carnaby.

"Getting cool already," he said. "Must not be more'n ten above freezing."

"We might get a little more snow before morning." Carnaby eyed the milky sky. "You'd better head back now, Terry. No point in you getting caught in a storm."

"I'm in for the play," the boy said shortly. "Say, Lieutenant,

you got another transmitter up there at the beacon station you might get through on?"

Carnaby shook his head. "Just the beacon tube, the lens generators and a power pack. It's a stripped-down installation. There's a code receiver, but it's only designed to receive classified instruction input."

"Too bad." They ate in silence for a few minutes, looking out over the plain below. "Lieutenant, when this is over," Sickie said suddenly, "we got to do something. There's got to be some way to remind the Navy about you being here!"

Carnaby tossed the empty can aside and stood. "I put a couple of messages on the air, sub-light, years ago," he said. "That's all I can do."

"Heck, Lieutenant, it takes six years just to make the relay station on Goy! Then if somebody happens to pick up the call and boost it, in another ten years some Navy brass might even see it. And then if he's in a good mood he might tell somebody to look into it, next time they're out this way!"

"Best I could do, Terry, now that the liners don't call any more."

Carnaby finished his stew and dropped the can. He watched it roll off down-slope, clatter over the edge, a tiny sound lost in

the whine and shrill of the wind. He looked up at the rampart ahead.

"We better get moving," he said. "We've got a long climb to make before dark."

Signal-lieutenant Pryor awoke to the strident buzz of his bunk-side telephone.

"Sir, the commodore's called a Condition Yellow," the message Deck NCO informed him. "It looks like that bandit blasted through our intercept and took out two Epsilon-classes while he was at it. I got a stand-by from command deck, and —"

"I'll be right up," Pryor said quickly.

Five minutes later, he stood with the on-duty signals crew, reading out an incoming from fleet. He whistled.

"Brother, they've got something new!" he looked at Captain Aaron. "Did you check out the vector they had to make to reach their new position in the time they've had?"

"Probably a foul-up in tracking." Aaron looked ruffled, routed out of a sound sleep.

"The commodore's counting off the scale," the NCO said. "He figured he had 'em boxed."

The annunciator beeped. The yeoman announced *Malthusa's* commander.

"All right, you men!" The

voice had a rough edge to it now. "The enemy has an idea he can maul Fleet units and go his way unmolested. I intend to disabuse him of that notion! I'm ordering a course change. I'll maintain contact with this bandit until such time as units designated for the purpose have reported his neutralization! This vessel is under a Condition Yellow at this time and need not remind you that relevant sections of the manual will be adhered to with full rigor!"

Pryor and Aaron looked at each, eyebrows raised. "He must mean business if he's willing to risk straining seams with a full-vector course change," the former said.

"So we pull six on and six off until he gets it out of his system," Aaron growled. "I knew this cruise wasn't going to work out as soon as I heard Old Carbuncle would be aboard."

"What's he got to do with it? Broady's running this action."

"Don't worry, he'll be in it before we're through."

On the slope, three thousand feet above the plain, Carnaby and Terry hugged the rock-face, working their way upward. Aside from the steepness of the incline, the going was of no more than ordinary difficulty here; the porous rock, resistant though it

was to the erosive forces that had long ago stripped away the volcanic cone of which the remaining mass had formed the core, had deteriorated in its surface sufficiently to afford easy hand and foot-holds. Now Terry paused, leaning against the rock. Carnaby saw that under the layer of dust, the boy's face was pale and drawn.

"Not much farther, Terry," he said. He settled himself in a secure position, his feet wedged in a cleft. His own arms were feeling the strain now; there was the beginning of a slight tremble in his knees after the hours of climbing.

"I didn't figure to slow you down, Lieutenant." Terry's voice showed the strain of his fatigue.

"You've been leading me a tough chase, Terry." Carnaby grinned across at him. "I'm glad of a rest." He noted the dark hollows under the lad's eyes, the pallor of his cheeks.

Sickle's tongue came out and touched his lips. "Lieutenant — you made a try — a good try. Turn back now. It's going to snow. You can't make it to the top in a blizzard."

Carnaby shook his head. "It's too late in the day to start down; you'd be caught on the slope. We'll take it easy up to the Roost. In the morning you'll have an easy climb down."

"Sure, Lieutenant. Don't worry about me." Terry drew a breath, shivered with the bitter wind that plucked at his snow jacket, started upward.

"What do you mean, lost him!" the bull roar of the commodore rattled the screen. "Are you telling me that this rag-tag refugee has the capability to drop off the screens of the best equipped tracking deck in the fleet?"

"Sir," the stubborn-faced tracking officer repeated, "I can only report that my screens register nothing within the conic of search. If he's there —"

"He's there, Mister!" The Commodore's eyes glared from under a bushy overhang of brows. "Find that bandit or face a court, Captain! I haven't diverted a ship of the fleet line from her course for the purpose of becoming the object of an effectiveness inquiry!"

The tracking officer turned away from the screen as it went white, met the quizzical gaze of the visiting signals lieutenant.

"The old devil's bit off too big a bite this time," he growled. "Let him call a court; he wouldn't have the gall."

"If we lose the bogie now, he won't look good back on Vandy," Pryor said. "This is serious business, diverting from cruise

plan to chase rumors. I wonder if he really had a positive ID on this track."

"Hell, no! There's no way to make a positive at this range, under these conditions! After three years without any action for the newstapes, the brass are grabbing at straws."

"Well, if I were you, Gordie, I'd find that track, even if it turns out to be a tramp with a load of bootleg *dran*."

"Don't worry. If he's inside the conic, I'll find him."

"I guess . . . it's dropped twenty degrees . . . in the last hour." Terry Sickle's voice was almost lost in the shriek of the wind that buffeted the two men as they inched their way up the last yards toward the hut on the narrow rock shelf called Halliday's Roost.

"Never saw snow falling at this temperature before." Carnaby brushed at the ice caked around his eyes. Through the swirl of crystals as fine as sand, he discerned the sagging outline of the shelter above.

Ten minutes later, inside the crude lean-to built of rock slabs, he set to work chinking the gaping holes in the five foot walls with packed snow. Behind him, Terry lay huddled against the back wall, breathing hoarsely.

"Guess . . . I'm not in as

good shape . . . as I thought I was," he said.

"You'll be okay, Terry." Carnaby closed the gap through which the worst of the icy draft was keening, paused long enough to open a can of stew for the other. The fragrance of the hot meat and vegetables made his jaws ache.

"Lieutenant, how are you going to climb in this snow?" Sickle's voice shook to the chattering of his teeth. "In good weather, you might have made it. Like this, you haven't got a chance!"

"Maybe it'll be blown clear by morning," Carnaby said mildly. He opened a can for himself. Terry ate slowly, shivering uncontrollably. Carnaby watched him worriedly.

"Lieutenant," the boy said, "even if that call you picked up was meant for you — even if this ship they're after is headed out this way — what difference will it make one way or another if one beacon's on the air or not?"

"Probably none," Carnaby said. "But if there's one chance in a thousand he breaks this way — well, that's what I'm here for, isn't it?"

"But what's a beacon going to do, except give him something to steer by?"

Carnaby smiled. "It's not that kind of beacon, Terry. My sta-

tion's part of a system — a big system — that covers the surface of a sphere of space a hundred lights in diameter. When there's an alert, each station locks in with the others that flank it and sets up what's called a stressed field. There's a lot of things you can do with this field. You can detect a drive, monitor communications — "

"What if these other stations you're talking about aren't working?" Terry cut in.

"Then my station's not going to do much good," Carnaby said.

"If the other stations are still on the air, why haven't any of them picked up your TX's and answered?"

Carnaby shook his head. "We don't use the beacon field to chatter back and forth, Terry. This is a top security system. Nobody knows about it except the top command levels — and of course, the men manning the beacons."

"Maybe that's how they came to forget about you. Somebody lost a piece of paper, and nobody else knew!"

"I shouldn't be telling you about it," Carnaby said with a smile. "But I guess you'll keep it under your hat."

"You can count on me, Lieutenant," Terry said solemnly.

"I know I can, Terry," Carnaby said.

The clangor of the general quarters alarm shattered the tense silence of the chart deck like a bomb through a plate glass window. The navigation officer whirled abruptly from the gram-metric over which he had been bending, collided with the deck chief. Both men leaped for the master position monitor, caught just a glimpse of a vivid scarlet trace lancing toward the emerald point targeted at the center of the plate before the apparatus exploded from its mounting, mowed the two men down in a hail of shattered plastic fragments.

Smoke boiled, black and pungent, from the gutted cavity. The duty NCO, bleeding from a dozen gashes, stumbled toward the two men, turned away in horror, reached an emergency voice phone. Before he could key it, the deck under him canted sharply. He screamed, clutched at a table for support, saw it tilt, came crashing down on top of him . . .

On the message deck, Lieutenant Pryor clung to an operator's stool, listening, through the stridency of the alarm bell, to the frantic voice from command deck:

"All sections, all sections, combat stations! We're under attack! My God, we've taken a hit — "

The voice cut off, to be replaced by the crisp tones of Colonel Lancer, first battle officer:

"As you were. Section G-987 and 989 damage control crews report! Forward armaments, safety interlocks off, stand by for firing orders! Message center, flash a code six to Fleet and TF Command. Power section, all selectors to gate, rig for full emergency power . . . "

Pryor hauled himself hand-over-hand to the main message console. The body of the code yeoman hung slackly in the seat harness, blood dripping from the fingertips of his dangling hand. Pryor freed him, took his place. He keyed the code six alarm into the pulse-relay tanks, triggered an emergency override signal, beamed the message outward toward the distant Fleet Headquarters.

On the command deck, Commodore Broadly clutched a sprained wrist to his chest, stood, teeth bared, feet braced apart, staring into the forward image-screen at the dwindling point of light that was the Djann blockade runner.

"The effrontery of the damned scoundrel!" he roared. "Lancer, launch another covey of U-95's! You've got over five hundred megaton/seconds of firepower, man! Use it!"

"He's out of range, Commodore," Lancer said coolly. "He booby-trapped us very neatly."

"It's your job to see that we don't blunder into traps, by God, Colonel!" the commodore rounded on the battle officer. "You'll stop that pirate, or I'll rip those eagles off your shoulders myself!"

Lancer's mouth was a hard line; his eyes were ice chips.

"You can relieve me, Commodore," his voice grated. "Until you do, I'm battle commander aboard this vessel."

"By God, you're relieved, sir!" Broadly yelled. He whirled on the startled exec standing by. "Confine this officer to his quarters! Order full emergency acceleration! This vessel's on Condition Red at full combat alert until we overtake and destroy that sneaking snake in the grass!"

"Commodore — at full emergency without warning, there'll be men injured, even killed — "

"Carry out my commands, Captain, or I'll find someone who will!" The admiral's bellow cut off the exec. "I'll show that filthy, sneaking pack of spiders what it means to challenge a Terran fighting ship!"

On the power deck, Chief Powerman Joe Arena wiped the cut on his forehead, stared at the bloody rag, hurled it aside with a curse.

"All right, you one-legged deck-apes!" he roared. You heard it! We're going after the bandit, full gate, and if we melt our linings down to slag, I'll have every man of you sign a statement of charges that'll take your grandchildren two hundred years to pay off!"

In the near darkness of the Place of Observation aboard the Djann vessel, the ocular complex of the One-Who-Commands glowed with a dim red sheen as he studied the apparently black surface of the sensitive plate. "The Death-Watcher has eaten our energy weapon," he communicated to his three link-brothers. "Now our dooms are in the palms of the fate-spinner."

"The Death-Watcher of the Water-Beings might have passed us by," the One-Who-Anticipates signaled. "It was an act of rashness to hurl the weapon at it."

"It will make a mighty song." The One-Who-Records thrummed his resonator plates, tried a melancholy bass chord.

"But what egg-carrier will exude the brood-nourishing honeys of strength and sagacity in response to these powerful rhymes, if the stimulus to their creation leads us to quick extinction?" the One-Who-refutes queried.

"In their own brief existence,



these harmonies find their justification," the One-Who-Records attested.

"The Death-Watcher shakes himself," the One-Who-Commands stated. "Now he turns in pursuit."

The One-Who-Records emitted a booming tone. "Gone are the great suns of Djann," he sang. "Lost are the fair worlds that knew their youth. But the spark of their existence glows still!"

"Now we fall outward, toward the Great Awesomeness," the One-Who-Anticipates commented. "Only the blackness will know your song."

"Draw in your energies from that - which - is - extraneous," the One-Who-Commands ordered. "Focus the full poignancy of your intellects on the urgency of our need for haste! All else is vain, now. Neither signer nor song will survive the vengeance of the Death-Watcher if he outstrips our swift flight!"

"Though Djann and Water-Being perish, my poem is eternal." The One-Who-Records emitted a stirring assonance. "Fly, Djanni! Pursue, Death-Watcher! Let the suns observe how we comport ourselves in this hour!"

"Exhort the remote nebulosities to attend our plight, if you must," the One-Who-refutes commented. "But link your energies to ours or all is lost!"

Silent now, the Djann privateer fled outward toward the Rim.

VII

Carnaby awoke, lay in darkness listening to the wheezing of Terry Sickle's breath. The boy didn't sound good. Carnaby sat up, suppressing a grunt at the stiffness of his limbs. The icy air seemed stale. He moved to the entry, lifted the polyon flap. A cascade of powdery snow poured in. Beyond the opening a faint glow filtered down through banked snow.

He turned back to Terry as the latter coughed deeply.

"Looks like the snow's quit," Carnaby said. "It's drifted pretty bad, but there's no wind now. How are you feeling, Terry?"

"Not so good, Lieutenant," Sickle said weakly. He breathed heavily, in and out. "I don't know what's got into me. Feel hot and cold at the same time."

Carnaby stripped off his glove, put his hand on Sickle's forehead. It was scalding hot.

"You just rest easy here for a while, Terry. There's a couple more cans of stew and plenty of water. I'll make it up to the top as quickly as I can. Soon as I get back, we'll go down. With luck, I'll have you to Doc Lin's house by dark."

THUNDERHEAD

"I guess . . . I guess I should have done like Doc said." Terry's voice was a thin whisper.

"What do you mean?"

"I been taking these hypo sprays. Two a day. He said I better not miss one, but heck, I been feeling real good lately —"

"What kind of shots, Terry?" Carnaby's voice was tight.

"I don't know. Heck, Lieutenant, I'm no invalid!" His voice trailed off.

"You should have told me, Terry!"

"Gosh, Lieutenant — don't worry about me! I didn't mean nothing! Hell, I feel . . ." He broke off to cough deeply, rackingly.

"Terry, Terry!" Carnaby put a hand on the boy's thin shoulder.

"I'm okay," Sickle gasped. "It's just asthma. It's nothing."

"It's nothing if you get your medicine on schedule," Carnaby said. "But —"

"I butted in on this party, Lieutenant," Terry said. "It's my own fault . . . if I come down sick." He paused to draw a difficult breath. "You go ahead, sir . . . do what you got to do . . . I'll be okay."

I've got to get you back, Terry. But I've got to go up first," Carnaby said. "You understand that, don't you?"

Terry nodded. "A man's got

to do his job . . . Lieutenant. I'll be waiting . . . for you . . . when you get back."

"Listen to me carefully, Terry." Carnaby's voice was low. "If I'm not back by this time tomorrow, you'll have to make it back down by yourself. You understand? Don't wait for me."

"Sure, Lieutenant, I'll just rest a while. Then I'll be okay."

"Sooner I get started, the sooner I'll be back." Carnaby took a can from the pack, opened it, handed it to Terry. The boy shook his head.

"You eat it, Lieutenant. You need your strength. I don't feel like I . . . could eat anything anyway."

"Terry, I don't want to have to pry your mouth open and pour it in."

"All right. But open one for yourself too."

"All right, Terry."

Sickle's hand trembled as he spooned the stew to his mouth. He ate half of the contents of the can, then leaned back against the wall, closed his eyes. "That's all . . . I want . . ."

"All right, Terry. You get some rest now. I'll be back before you know it." Carnaby crawled out through the open pushed his way up through loosely drifted snow. The cold struck his face like a spiked club. He turned the suit control up another notch, notic-

ing as he did that the left side seemed to be cooler than the right.

The near-vertical rise of the final crown of the peak thrust up from the drift, dazzling white in the morning sun. Carnaby examined the rockface for twenty feet on either side of the hut, picked a spot where a deep crack angled upward, started the last leg of the climb.

On the message deck, Lieutenant Pryor frowned into the screen from which the saturnine features of Lieutenant Aaron gazed back sourly.

"The commodore's going to be unhappy about this," Pryor said. "If you're sure your extrapolation is accurate —"

"It's as good as the data I got from plotting," Aaron snapped. "The bogie's over the make-or-break line; we'll never catch him now. You know your trans-Einsteinian physics as well as I do."

"I never heard of the Djann having anything capable of that kind of acceleration," Pryor protested.

"You have now." Aaron switched off and keyed command deck, passed his report to the exec, then sat back with a resigned expression to await the reaction.

Less than a minute later, Commodore Broadly's irate face

"snapped into focus on the screen.

"You're the originator of this report?" he growled.

"I did the extrapolation." Aaron stared back at his commanding officer.

"You're relieved for incompetence," Broadly said in a tone as harsh as a handsaw.

"Yes sir," Aaron said. His face was pale, but he returned the commodore's stare. "But my input data and comps are a matter of record. I'll stand by them."

Broadly's face darkened. "Are you telling me these spiders can spit in our faces and skip off, scot-free?"

"All I'm saying, sir, is that the present acceleration ratios will put the target ahead of us by a steadily increasing increment."

Broadly's face twitched. "This vessel is at full emergency gain!" he growled. "No Djann has ever outrun a fleet unit in a straight-away run."

"This one is . . . sir."

The commodore's eyes bored into Aaron's. "Remain on duty until further notice," he said, and switched off. Aaron smiled crookedly and buzzed the message deck.

"He backed down," he said to Pryor. "We've got a worried commodore on board."

"I don't understand it myself," Pryor said. "How the hell is that can out-gaining us?"

"He's not," Aaron said complacently. "From a standing start, we'd overhaul him in short order. But he got the jump on us by a couple of minutes, after he lobbed the fish into us. If we'd been able to close the gap in the first half hour or so, we'd have had him; but at trans-L velocities, you get some strange effects. One of them is that our vectors become asymptotic. We're closing on him — but we'll never overtake him."

Pryor whistled. "Broadly could be busted for this fiasco."

"Uh-huh," Aaron grinned. "Could be — unless the bandit stops for a quick one . . ."

After Aaron rang off, Pryor turned to study the position repeater screen. On it *Malthusa* was represented by a bright point at the center, the fleeing Djann craft by a red dot above.

"Charlie," Pryor called the NCOIC. "That garble TX we picked up last watch; where did you R and D it?"

"Right about here, Lieutenant." The NCO flicked a switch and turned knobs; a green dot appeared near the upper edge of the screen.

"Hey," he said. "It looks like maybe our bandit's headed out his way."

"You picked him up on Y-band. Have you tried to raise him again?"

"Yeah, but nothing doing, Lieutenant. It was just a fluke—"

"Get a Y-beam on him, Charlie. Focus it down to a cat's whisker and work a pattern over a one degree radius centered around his MPP until you get an echo."

"If you say so, sir — but —"

"I do say so, Charlie! Find that transmitter, and the drinks are on me!"

VIII

Flat against the wind-swept rockface, Carnaby clung with his fingertips to a tenuous hold, feeling with one booted toe for a purchase higher up. A flake of stone broke away, and for a moment he hung by the fingers of his right hand, his feet dangling over emptiness; then, swinging his right leg far out, he hooked a knob with his knee, caught at a rocky rib with his free hand, pulled himself up to a more secure rest. He clung, his cheek against the iron-cold stone; out across the vast expanse of featureless grayish-tan plain the gleaming whipped-cream shape of the next core rose, ten miles to the south.

A wonderful view up here — of nothing. Funny to think it could be his last. He was out of condition. It had been too long since his last climb . . .

But that wasn't the way to think. He had a job to do — the first in twenty-one years. For a moment, ghostly recollections rose up before him: The trim Academy lawns, the spit-and-polish of inspection, the crisp feel of the new uniform, the glitter of the silver comet as Anne pinned it on . . .

That was no good either. What counted was here: The station up above. One more push, and he'd be there.

He rested for another half minute, then pulled himself up and forward, onto the relatively mild slope of the final approach to the crest. Fifty yards above, the dull-gleaming plastron-coated dome of the beacon station squatted against the exposed rock, looking no different than it had five years earlier.

Five minutes later, he was at the door, flicking the combination latch dial with cold-numbed fingers.

Tumblers clicked, and the panel slid aside. The heating system, automatically reacting to his entrance, started up with a busy hum to bring the interior temperature up to comfort level. He pulled off his gauntlets, ran his hands over his face, rasping the stubble there. There was coffee in the side table, he remembered. Fumblingly, with stiff fingers, he got out the dispenser,

twisted the control cap, poured out a steaming mug, gulped it down. It was hot and bitter. The grateful warmth of it made him think of Terry, waiting down below in the chill of the half-ruined hut.

"No time to waste," he muttered to himself. He stamped up and down the room, swinging his arms to warm himself, then seated himself at the console, flicked keys with a trained ease rendered only slightly rusty by the years of disuse. He referred to an index, found the input instructions for Code Gamma Eight, set up the boards, flipped in the Pulse lever. Under his feet, he felt the faint vibration as the power pack buried in the rock stored its output for ten microseconds, fired it in a single millisecond burst, stored and pulsed again. Dim instrument lights winked on, indicating normal readings all across the board.

Carnaby glanced at the wall clock. He had been here ten minutes now. It would take another quarter hour to comply with the manual's instructions — but to hell with that gobbledegook. He'd put the beacon on the air; this time the Navy would have to settle for that. It would be pushing it to get back to the boy and pack him down to the village by nightfall as it was. Poor kid; he'd wanted to help so badly . . .

"That's correct, sir," Pryor said crisply. "I haven't picked up any come-back on my pulse, but I'll definitely identify the echo as coming from a JN type installation."

Commodore Broadly nodded curtly. "However, inasmuch as your instruments indicate that this station is operating solo — not linked in with a net to set up a defensive field — it's of no use to us." The commodore looked at Pryor coldly.

"I think perhaps there's a way, sir," Pryor said. "The Djann are known to have strong tribal feelings. They'd never pass up what they thought was an SOS from one of their own. Now, suppose we signal this JN station to switch over to the Djann frequencies and beam one of their own signal-patterns at them. They just might stop to take a look . . ."

"By God!" Broadly looked at the signals lieutenant. "If he doesn't, he's not human!"

"You like the idea, sir?" Pryor grinned.

"A little rough on the beacon station if they reach it before we do, eh, Lieutenant? I imagine our friends the Djann will be a trifle upset when they learn they've been duped."

"Oh . . ." Pryor looked blank. "I guess I hadn't thought of that, sir."

"Never mind," Broadly said briskly. "The loss of a minor installation such as this is a reasonable exchange for an armed vessel of the enemy."

"Well . . ."

"Lieutenant, if I had a few more officers aboard who employed their energies in something other than assembling statistics proving we're beaten, this cruise might have made a record for itself — " Broadly cut himself off, remembering the degree of aloofness due every junior officers — even juniors who may have raked some very hot chestnuts out of the fire.

"Carry on, Lieutenant," he said. "If this works out, I think I can promise you a very favorable endorsement on your next ER."

As Pryor's pleased grin winked off the screen, the commodore flipped up the red line key, snapped a brusque request at the bored log room yeoman.

"This will make Old Carbuncle sing another tune," he remarked almost gaily to the Exec, standing by with a harassed expression.

"Maybe you'd better go slow, Ned," the latter cautioned, gauging his senior's mood. "It might be as well to get a definite confirmation on this installation's capabilities before we go on record — "

Broadly turned abruptly to the screen as it chimed. "Admiral, as I reported, I've picked up one of our forward beacon towers," Broadly's hearty voice addressed the screen from which the grim visage of the task force commander eyed him. "I'm taking steps to complete the intercept that are, if I may say so, rather ingenious."

"It's my understanding the target is receding on an I-curve, Broadly," the admiral said flatly. "I've been anticipating a Code thirty-three from you."

"Break off action?" Broadly's jaw dropped. "Now, Tom — "

"It's a little irregular to use a capital ship of the line to chase a ten-thousand-ton yacht." The task force commander ignored the interruption. "I can understand your desire to break the monotony with a little activity; good exercise for the crew, too. But at the rate the signal is attenuating, it's apparent you've lost her." His voice hardened. "I'm beginning to wonder if you've forgotten that your assignment is the containment of enemy forces supposedly pinned down under tight quarantine!"

"This yacht, as you put it, Admiral, blew two of my detached units out of space!" Broadly came back hotly. "In addition, he planted a missile squarely in my fore lazaret — "

"I'm not concerned with the details of your operation at this moment, Commodore." The other bit off the words like bullets. "I'm more interested in maintaining the degree of surveillance over my assigned quadrant that Concordiat security requires. Accordingly —"

"Just a minute, Tom, before you commit yourself!" Broadly's florid face was pale around the ears. "Perhaps you failed to catch my first remark: I have a forward station directly in the enemy's line of retreat. The intercept is in the bag — unless you countermand me."

"You're talking nonsense! The target's well beyond the Inner Line."

"He's not beyond the Outer Line!"

The Admiral frowned. His tight, well-chiseled face was still youthful under the mask of authority. "The system was never extended into the region under discussion," he said harshly. "I suggest you recheck your instruments. In the interim, I want to see an advice of a course-correction for station in the length of time it takes you to give the necessary orders to your navigation section."

Broadly drew a breath, hesitated. If Old Carbuncle was right — if that infernal signals lieutenant had made a mistake —

but the boy seemed definite enough about it. He clamped his jaw. He'd risked his career on a wild throw; maybe he'd acted a little too fast; maybe he'd been a little too eager to grab a chance at some favorable notice; but the die was cast now. If he turned back empty-handed the entire affair would go into the record as a major fiasco. But if this scheme worked out . . .

"Unless the admiral wishes to make that a direct order," he heard himself saying firmly, "I intend to hold my course and close with the enemy. It's my feeling that neither the admiralty nor the general public will enjoy hearing of casualties inflicted by a supposedly neutralized enemy who was then permitted to go his way unhindered." He returned the other's stare, feeling a glow of pride at his own decisiveness and a simultaneous sinking sensation at the enormity of the insubordination.

The vice admiral looked back at him through narrowed eyes. "I'll leave that decision to you, Commodore," he said tightly. "I think you're as aware as I of what's at stake here."

Broadly stiffened at what was almost an open threat. "Instruct your signals officer to pass full information on this supposed station to me immediately," the senior concluded curtly and then dis-

appeared from view on the screen.

Broadly turned away, feeling all eyes on him. "Tell Pryor to copy his report to G at once," he said in a harsh voice. His eyes strayed to the exec's. "And if this idea of his doesn't work out, God help him." *And all of us*, he added under his breath.

As Carnaby reached for the door, to start the long climb down, a sharp *beep!* sounded from the panel behind him.

He looked back, puzzled. The bleat repeated, urgent, commanding. He swung the pack down, went to the console, flipped down the REC key.

". . . . 37 Ace Trey," an excited voice came through loud and clear. "I repeat, cut your beacon immediately! JN37 Ace Trey, Cincsec One-oh-four to JN37 Ace Trey. Shut down beacon soonest! This is an Operational Urgent! JN37 Ace Trey, cut beacon and stand by for further operational urgent instructions"

IX

On the fleet command Deck aboard the flagship, Vice-Admiral Thomas Carnaby, otherwise known as Old Carbuncle, studied the sector triagram as his Communications Chief pointed out the positions of the flagship,

Malthusa, the Djann refugee and the reported JN beacon station.

"I've researched the call letters, sir," the gray-haired signals major said. "They're not shown on any listing as an active station. In fact, the entire series of which this station would be a part is coded null; never reported in commission."

"So someone appears to be playing pranks, is that your conclusion, Henry?"

The signals officer pulled at his lower lip. "No, sir, not that, precisely. I've done a full analytical on the recorded signal that young Pryor first intercepted. It's plainly directed to Cincsec in response to the alert; and the ID is confirmed. Now, as I say, this series was dropped from the register. But at one time, such a designation was assigned *en bloc* to a proposed link in the Out-line. However, the planned installations never came to fruition due to changes in the strategic position."

The vice-admiral frowned. "What changes were those?"

"The task force charged with the establishment of the link encountered heavy enemy pressure. In fact, the cruiser detailed to carry out the actual placement of the units was lost in action with all hands. Before the program could be re-initiated, a withdrawal from the sector was

ordered. The new link was never completed, and the series was retired, unused."

"So?"

"So . . . just possibly, sir, one of those old stations was erected before *Redoubt* was lost —"

"What's that?" The admiral rounded on the startled officer. "Did you say . . . *Redoubt*." His voice was a hiss between set teeth.

"Y — yessir!"

"*Redoubt* was lost with all hands before she planted her first station!"

"I know that's what we've always thought, Admiral —"

The Admiral snatched the paper from the major's hand. "JN37 Ace-Trey," he read aloud. "Why the hell didn't you say so sooner?" He whirled to his chief of staff.

"What's Broadly got in mind?" he snapped the question.

The startled officer began a description of the plan to decoy the Djann vessel into range of *Malthusa's* batteries.

"*Decoy*?" the vice admiral snarled. The exec took a step backward, shocked at the expression on his superior's face. The latter spun to face his battle officer, standing by on the bridge.

"General, rig out an interceptor and get my pressure gear into it! I want it on the line ready for THUNDERHEAD

launch in ten minutes! Assign your best torchman as co-pilot!"

"Yessir!" The general spoke quickly into a lapel mike. The admiral flicked a key beside the hot-line screen.

"Get Broadly," he said in a voice like doom impending.

In the Djann ship, the One-Who-Commands stirred and extended a contact to his crewmembers. "Tune keenly in the scarlet regions of the spectrum," he communicated. "And tell me whether the spinners weave a new thread in the tapestry of our fates."

"I sensed it but now and felt recognition stir within me!" the mighty euphony. "A voice of the One-Who-Records thrummed a Djann, sore beset, telling of mortal need!"

"I detect a strangeness," the One-Who-Refutes indicated. "This is not the familiar voice of They-Who-Summon."

"After the passage of ninety cycles, it is not surprising that new chords have been added to the voice and others withdrawn," the One-Who-Anticipates pointed out. "If the link-cousins are in distress, our path is clear!"

"Shall I then bend our fate-line to meet the new voice?" the One-Who-Commands called for a weighing. "The pursuers press us closely."

"The voice calls. Will we per-

vert our saga by shunning it?"

"This is a snare of the Water-Beings, calculated to abort our destinies!" The One-Who-Refutes warned. "Our vital energies are drained to the point of incipient coma by the weapon-which-feeds-on-life! If we turn aside now, we place ourselves in the jaws of the destroyer!"

"Though the voice lies, the symmetry of our existence demands that we answer its appeal," the One-Who-Anticipates declared.

"Go to it," The One-Who-Records sounded a booming arpeggio, combining triumph and defeat. "Let the Djann flame burn brightest in its hour of extinction!"

"By God, they've fallen for it!" Commodore Broadly smacked his fist into his hand and beamed at the young signals lieutenant. He rocked back on his heels, studying the position chart the plot officer had set up for him on the message deck. "We'll make the intercept about here." His finger stabbed at a point a fractional light from the calculated position of the new-found OL station.

He broke off as an excited voice burst from the intercom screen.

"Commodore Broadly, sir! Urgent from task — " The yeoman's face disappeared from the

screen to be replaced by the fierce visage of the vice-admiral.

"Broadly, sheer off and take up course for station and then report yourself under arrest! Commodore Baskov will take command: I've countermanded your damned-fool orders to the OL station! I'm on my way out there now to see what I can salvage — and when I get back, I'm preferring charges against you that will put you on the beach for the rest of your miserable life!"

X

In the beacon station atop the height of ground known as Thunderhead, Carnaby waited before the silent screen. The modification to the circuitry had taken half an hour; setting up the new code sequences, another fifteen minutes. Then another half hour had passed, while the converted beacon beamed out the alien signal.

He'd waited long enough. It had been twenty minutes now since the last curt order to stand by; and in the hut a thousand feet below, Terry had been waiting now for nearly five hours, every breath he drew a torture of strangulation. The order had been to put the signal on the air, attempt to delay the enemy ship. Either it had worked, or it

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hadn't. If Fleet had any more instructions for him, they'd have to damn well deliver them in person. He'd done what was required. Now he had to see to the boy.

Carnaby rose, again donned the back-pack, opened the door. As he did so, a faint, deep-toned rumble of distant thunder rolled. He stepped outside, squinted up at the sky, a dazzle of mist-gray. maybe the snow squall was headed back this way. That would be bad luck; it would be close enough as it was.

A bright point of light caught his eye, winking from high above, almost at zenith.

Carnaby felt his heart take a leap in his chest that almost choked off his breath. For a moment he stood, staring up at it; then he whirled back through the door.

" . . . termand previous instructions!" A new voice was rasping from the speaker. "Terminate all transmissions immediately! JN37, shut down power and vacate station! Repeat, an armed enemy vessel is believed to be vectored in on your signal! This is, repeat, a hostile vessel! You are to cease transmission and abandon station immediately — "

Carnaby's hand slapped the big master lever. Lights died on the panel. Underfoot, the minute

vibration jelled into immobility. Sudden silence pressed in like a tangible force — a silence broken by a rising mutter from above.

"Like that, eh?" Carnaby said to himself through clenched teeth. "Abandon station, eh?" He took three steps to a wall locker, yanked the door wide, took out a short, massive power rifle, still encased in its plastic protective cover. He stripped the oily sheath away, checked the charge indicator; it rested on FULL.

There were foot-square windows set on each side of the twenty-foot room. Carnaby went to one. By putting his face flat against the armorplast panel he was able to see the ship, now a flaring fireball dropping in along a wide approach curve. As it descended swiftly, the dark body of the vessel took shape above the glare of the drive. It was a small, blunt-ended ovoid of unfamiliar design, a metallic black in color, decorated fore and aft with the scarlet blazons of a Djann war vessel.

The ship was close now, maneuvering to a position a thousand feet directly overhead. Now a small landing craft detached itself from the parked ship and plummeted downward like a stone with a shrill whistling of highspeed rotors, to settle in across the expanse of broken

rock in a cloud of pale dust. The black plastic bubble atop the landing sled split like a clam-shell.

A shape came into view, clambered over the cockpit rim and stood, a cylindrical bronze-black body slung by leather mesenteries from the paired U frames that were its ambulatory members, two pairs of grasping limbs folded above.

A second Djann emerged, a third, a fourth. They stood together, immobile, silent, while a minute ticked past. Sweat trickled down the side of Carnaby's face. He breathed shallowly, rapidly, feeling the almost painful thudding of his heart. They'd ordered him to delay the enemy; well, he'd delay them

One of the Djann moved suddenly, its strange, jointless limbs moving with twinkling grace and speed. It flowed across to a point from which it could look down across the plain, then angled to the left and reconnoitered the entire circumference of the mountain top. Carnaby moved from window to window to watch it. It rejoined the other three; briefly, they seemed to confer. Then one of the creatures, whether the same one or another Carnaby wasn't sure, started across toward the hut.

Carnaby moved back into a

position in the lee of a switch gear cabinet. A moment later the Djann appeared at the door. At a distance of fifteen feet, Carnaby saw the lean limbs, like leather-covered metal; the heavy body; the immense faceted eyes that caught the light and sent back fiery glints. For thirty seconds the creature scanned the interior of the structure. Then it withdrew.

Carnaby let out a long, shaky breath, watched it lope back to rejoin its companions. Again, the Djann conferred; then one turned to the landing craft.

For a long moment Carnaby hesitated. He could stay where he was, do nothing, and the Djann would reboard their vessel and go their way; and in a few hours a fleet unit would heave into view off Longone, and he'd be home safe.

But the orders had been to delay the enemy

He centered the sights of the power gun on the alien's body, just behind the fore-legs, and pushed the firing stud.

A shaft of purple fire blew the window from its frame, lanced out to smash the up-rearing alien against the side of the sled, sent it skidding in a splatter of molten rock and metal. Carnaby swung the rifle, fired at a second Djann as the group scattered; the stricken creature went down, rolled,

came up, stumbling on three limbs. He fired again, knocked the creature spinning, dark fluid spattering from a gaping wound in the barrel-like body. Carnaby swung to cover a third Djann, streaking for the plateau's edge; his shot sent a shower of molten slag arcing high from the spot where it disappeared.

He lowered the gun, stepped outside, ran to the corner of the building. The fourth Djann was crouched in the open, thirty feet away; Carnaby saw the glitter of a weapon gripped in the hand-like members springing from its back. He brought the gun up, fired in the same instant that light etched the rocks, and a hammer-blow struck him crushingly in the side, knocked him back against the wall. He tasted dust in his mouth, was aware of a high, humming sound that seemed to blank out his hearing, his vision, his thoughts

He came to, lying on his side against the wall. Forty feet away, the Djann sprawled, its stiff limbs out-thrust at awkward angles. Carnaby looked down at his side.

The Djann particle-gun had torn a gaping rent in his suit, through which he could see bright crimson beads of frozen blood. He groped, found the rifle, dragged it to him. He shook his head to clear away the mist that seemed to obscure his vision. At every



move, a terrible sharp pain stabbed outward from his chest. *Ribs broken*, he thought. *Something smashed inside*, too. It was hard for him to breathe. The cold stone on which he lay seemed to suck the heat from his body.

Across the hundred foot stretch of frost-shattered rock, a soot-black scar marked the spot where the escaping Djann had gone over the edge. Painfully, Carnaby propped the weapon to cover the direction from which attack might come. Then he slumped, his face against the icy rock, watching down the length of the rifle barrel for the next move from the enemy.

"Another four hours to shift, Admiral," said General Drew, the battle commander acting as co-pilot aboard the racing interceptor. "That's if we don't blow our linings before then."

"Bandit still holding position?" The admiral's voice was a grate as of metal against metal.

Drew spoke into his lip mike, frowned at the reply. "Yes, sir, *Malthusa* says he's still stationary. Whether his focus is identical with the LN beacon's fix or not, he isn't sure at that range."

"He could be standing by off-planet, looking over the ground," the admiral muttered half to himself.

"Not likely, Admiral. He knows we're on his tail."

"I know it's not likely, damn it!" the admiral snarled. "But if he isn't, we haven't got a chance."

"I suppose the Djann conception of honor requires these beggars to demolish the beacon and hunt down the station personnel, even if it means letting us overhaul them," Drew said. "A piece of damn foolishness on their part, but fortunate for us."

"For us, General? I take it you mean yourself and me, not the poor devil that's down there alone with them!"

"Just the one man? Well, we'll get off more cheaply than I imagined." The general glanced sideways at the admiral, intent over the controls. "After all, he's Navy. This is his job, what he signed on for."

"Kick the converter again, General," Admiral Carnaby said between his teeth. "Right now you can earn your pay by squeezing another quarterlight out of this bucket."

Crouched in a shallow crevice below the rim of the mesa where the house of the Water-Beings stood, the One-Who-Records quivered under the appalling impact of the death-emanations of his link-brothers.

"Now it lies with you alone," the fading thought came from the

One-Who-Commands. "But the Water-Being, too, is alone, and in this . . . there is . . . a certain euphony . . ." The last fragile tendril of communication faded.

The One-Who-Records expelled a gust of the planet's noxious atmosphere from his ventral orifice-array, with an effort freed his intellect of the shattering extinction-resonances it had absorbed. Cautiously, he probed outward, sensing the strange, fiery mind-glow of the alien

Ah, he too was injured! The One-Who-Records shifted his weight from his scalded forelimb, constricted further the flow of vital fluids through the damaged section of his epidermal system. He was weakened by the searing blast that had scored his flank, but still capable of action; and up above, the wounded Water-Being waited.

Defly, the Djann extracted the hand-weapon from the sheath strapped to his side, holding it in a two-handed grip, its broad base resting on his dorsal ridge, its ring-lenses aligned along his body. He wished briefly that he had spent more *li* periods in the peril-tanks, impressing the weapon's use-syndromes on his reflex system; but reckless regrets made poor scansion. Now indeed the display-podium of existence narrowed down to a single confrontation: A brief and final act in a

century-old drama, with the fate of the mighty epic of Djann resting thereon. The One-Who-records sounded a single, trumpet-like resonance of exultation and moved forward to fulfill his destiny.

XI

At the faint bleat of sound, Carnaby raised his head. How long had he lain here, waiting for the alien to make its move? Maybe an hour, maybe longer. He had passed out at least twice, possibly for no more than a second or two; but it could have been longer. The Djann might even have gotten past him — or crawled along below the ridge, ready now to jump him from a new angle

He thought of Terry Sickie, waiting for him, counting on him. Poor kid; time was running out for him. The sun was dropping low, and the shadows would be closing in. It would be ice cold inside the hut; and down there in the dark the boy was slowly strangling, maybe calling for him

He couldn't wait any longer. To hell with the alien. He'd held him long enough. Painfully, using the wall as a support, Carnaby got to his hands and knees. His side felt as though it had been opened and packed with

red-hot stones — or were they ice-cold? His hands and feet were numb. His face ached. Frostbite. He'd look fine with a frozen ear. Funny how vanity survived as long as life itself . . .

He got to his feet, leaned against the building, worked on breathing. The sky swam past him, fading and brightening. His feet felt like blocks of wood; that wasn't good. He had a long way to go. But the activity would warm him, get the blood flowing, except where the hot stones were. He would be lighter if he could leave them here. His hands moved at his side, groping over torn polyon, the sharp ends of broken wires . . .

He brought his mind back to clarity with an effort. Wouldn't do to start wandering now. The gun caught his eye, lying at his feet. Better pick it up; but to hell with it, too much trouble. Navy property. Can't leave it here for the enemy to find. Enemy. Funny dream about a walking oxy tank, and —

He was looking at the dead Djann, lying, awkward, impossible, thirty feet away. No dream. The damn things were real. He was here, alone, on top of Thunderhead —

But he couldn't be. Flitter was broken down. Have to get another message off via the next tramp steamer that made planet-

fall. Hadn't been one for . . . how long?

Something moved, a hundred feet away, among the tumble of broken rock.

Carnaby ducked, came up with the blast-rifle, fired in a half-crouch from the hip, saw a big dark shape scramble up and over the edge, saw the wink of yellow light, fired again, cursing the weakness that made the gun buck and yaw in his hands, the darkness that closed over his vision. With hands that were stiff, clumsy, he fired a third time at the swift-darting shape that charged toward him; and then he was falling, falling . . .

Stunned by the direct hit from the energy weapon of the Water-Being, the One-Who-Records fought his way upward through a universe shot through with whirling shapes of fire, to emerge on a plateau of mortal agony.

He tried to move, was shocked into paralysis by the cacophony of conflicting motor and sense impressions from shattered limbs and organs.

Then I, too, die, the thought came to him with utter finality. And with me dies the once-mighty song of Djann.

Failing, his mind groped outward, calling in vain for the familiar touch of his link-brothers —

and abruptly, a sharp sensation impinged on his sensitivity-complex. Concepts of strange and alien shape drifted into his mind, beating at him with compelling urgency from a foreign brain:

Youth, aspirations, the ringing bugle of the call-to-arms. A white palace rearing up into yellow sunlight; a bright banner, rippling against blue sky, and the shadows of great trees rank-ed on green lawns. The taste of grapes, and an odor of flowers; night, and the moon reflected from still water; the touch of a soft hand and the face of a woman, invested with a supernal beauty; chords of a remote music that spoke of the inexpressibly desirable, the irretrievably lost . . .

"Have we warred then, Water-Beings?" the One-Who-Records sent his thought outward. "We who might have been brothers?" With a mighty effort, he summoned his waning strength, sounded a final chord in tribute to that which had been.

Carnaby opened his eyes and looked at the dead Djann lying in the crumpled posture of its final agony, not six feet from him. For a moment, a curious sensation of loss plucked at his mind.

"Sorry, fellow," he muttered aloud. "I guess you were doing what you had to do, too."

He stood, felt the ground sway under his feet. His head was light, hot; a sharp, clear humming sounded in his ears. He took a step, caught himself as his knees tried to buckle.

"Damn it, no time to fall out now," he grunted. He moved past the alien body, paused by the door to the shed. A waft of warm air caressed his cold-numbed face.

"Could go inside," he muttered. "Wait there. Ship along in a few hours, maybe. Pick me up . . ." He shook his head angrily. "Job's not done yet," he said clearly, addressing the white gleam of the ten mile distant peak known as Cream-top. "Just a little longer, Terry," he added. "I'm coming."

Painfully, Carnaby made his way to the edge of the plateau, pulled himself up and over and started down.

"We'd better shift to sub-L now, Admiral," Drew said, strain showing in his voice. "We're cutting it fine as it is."

"Every extra minute at full gain saves a couple of hours," the vice-admiral came back.

"That won't help us if we kick out inside the Delta limit and blow ourselves into free ions," the general said coolly.

"You've made your point, General!" The admiral kept his

eyes fixed on his instruments. Half a minute ticked past. Then he nodded curtly.

"All right, kick us out," he snapped, "and we'll see where we stand."

The hundred-ton interceptor shuddered as the distorters whined down the scale, allowing the stressed space field that had enclosed the vessel to collapse. A star swam suddenly into the visible spectrum, blazing at planetary distance off the starboard bow at three o'clock high.

"Our target's the second body, there." The co-pilot punched the course into the panel.

"What would you say, another hour?" The admiral bit off the words.

"Make it two," the other replied shortly. He glanced up, caught the admiral's eye on him.

"Kidding ourselves won't change anything," he said steadily.

Admiral Carnaby narrowed his eyes, opened his mouth to speak, then clamped his jaw shut.

"I guess I've been a little snappy with you, George," he said. "I'll ask your pardon. That's my brother down there."

"Your . . . ?" the general's features tightened. "I guess I said some stupid things myself, Tom." He frowned at the instruments, busied himself adjusting course for an MIT approach.

Carnaby half jumped, half fell the last few yards to the narrow ledge called Halliday's Roost, landed awkwardly in a churn of powdered wind-driven snow. For a moment he lay sprawled, then gathered himself, made it to his feet, tottered to the hollow concealing the drifted entrance to the hut. He lowered himself, crawled down into the dark, clammy interior.

"Terry," he called hoarsely. A wheezing breath answered him. He felt his way to the boy's side, groped over him. He lay on his side, his legs curled against his chest.

"Terry!" Carnaby pulled the lad to a sitting position, he felt him stir feebly. "Terry, I'm back! We have to go now, Terry . . ."

"I knew —" the boy stopped to draw an agonizing breath — "you'd come . . ." He groped, found Carnaby's hand.

Carnaby fought the dizziness that threatened to close in on him.

He was cold — colder than he had ever been. The climbing hadn't warmed him. The side wasn't bothering him much now; he could hardly feel it. But he couldn't feel his hands and feet, either. They were like stumps, good for nothing . . . Clumsily, he backed through the entry, bodily hauling Terry along with him.

Outside, the wind lashed at him like frozen whips. Carnaby raised Terry to his feet. The boy leaned against him, slid down, crumpled to the ground.

"Terry, you've got to try," Carnaby gasped out. His breath seemed to freeze in his throat. "No time to waste . . . got to get you to . . . Doc Lin . . ."

"Lieutenant . . . I . . . can't . . ."

"Terry . . . you've got to try!" He lifted the boy to his feet.

"I'm . . . scared . . . Lieutenant . . . " Terry stood swaying, his slight body quivering, his knees loose.

"Don't worry, Terry." Carnaby guided the boy to the point from which they would start the climb down. "Not far now."

"Lieutenant . . . " Sickler caught at Carnaby's arm, clung. "You . . . better . . . leave . . . me."

His breath sighed in his throat.

"I'll go first." Carnaby heard his own voice as from a great distance. "Take . . . it easy. I'll be right there . . . to help . . ."

He forced a breath of sub-zero air into his lungs. The bitter wind moaned around the shattered rock. The dusky afternoon sun shed a reddish light but no heat on the long slope below.

"It's late." He mouthed the words with stiff lips. "It's late . . ."

Two hundred thousand feet above the surface of the outpost world Longone, the fleet interceptor split the stratosphere, its receptors fine-tuned to the Djann energy-call emission spectrum.

"Three hundred million square miles of desert," Admiral Carnaby said. "Except for a couple of deserted townsites, not a sign that life ever existed here."

"We'll find it, Tom," Drew said. "If they'd lifted, *Malthusa* would have known — hold it!" He looked up quickly. "I'm getting something — yes! It's the typical Djann idler output!"

"How far from us?"

"Quite a distance . . . Now it's fading . . ."

The admiral put the ship into a screaming deceleration curve that crushed both men brutally against the restraint of their shock-frames.

"Find that signal, George," the vice-admiral grated. "Find it and steer me to it, if you have to pick it out of the air with psi!"

"I've got it!" Drew barked. "Steer right, on 030. I'd range it at about two thousand kilometers . . ."

On the bald face of an outcropping of wind-scored stone, Carnaby clung one-handed to a

scanty hold, supporting Terry with the other arm. The wind shrieked, buffeting at him; sand-fine snow whirled into his face, slashing at his eyes, already half-blinded by the glare. The boy slumped against him, barely conscious.

His mind seemed as sluggish now as his half-frozen limbs. Somewhere below, there was a ledge, with shelter from the wind. How far? Ten feet? Fifty?

It didn't matter. He had to reach it. He couldn't hold on here, in this wind; in another minute he'd be done for.

Carnaby pulled Terry closer, got a better grip with a hand that seemed no more a part of him than the rock against which they clung. He shifted his purchase with his right foot — and felt it slip. He was falling, grabbing frantically with one hand at the rock, then dropping through open air —

The impact against drifted snow drove the air from his lungs. Darkness shot through with red fire threatened to close in on him; he fought to draw a breath, struggling in the claustrophobia of suffocation. With a desperate lunge, he caught a ridge of hard ice, pulled himself back from the brink, then groped, found Terry, lying on his back under the vertically rising wall of rock. The boy stirred.

"So . . . tired . . ." he whispered. His body arched as he struggled to draw breath.

Carnaby pulled himself to a position beside the boy, propped himself with his back against the rock. Dimly, through ice-rimmed eyes, he could see the evening lights of the settlement, far below; so far . . .

He put his arm around the thin body, settled the lad's head gently in his lap, leaned over him to shelter him from the whirling snow. "It's all right, Terry," he said. "You can rest now."

Supported on three narrow pencils of beamed force, the fleet interceptor slowly circuited the Djann yacht, hovering on its idling null-G generators a thousand feet above the towering white mountain.

"Nothing alive there," the copilot said. "Not a whisper on the life-detection scale."

"Take her down." Vice-Admiral Carnaby squinted through S-R lenses which had darkened almost to opacity in response to the frost-white glare from below. "The shack looks all right, but that doesn't look like a Mark 7 flitter parked beside it."

The heavy fleet boat descended swiftly under the expert guidance of the battle officer. At fifty feet, he leveled off, orbited the station.

"I count four dead Djann," the

admiral said in a brittle voice.

"Tracks," the general pointed. "Leading off there..."

"Put her down, George!" The hundred-foot boat settled in with a crunching of rock and ice, its shark's prow overhanging the edge of the tiny plateau. The hatch cycle open; the two men emerged.

At the spot where Carnaby had lain in wait for the last of the aliens, they paused, staring silently at the glossy patch of dark blood, and at the dead Djann beside it. Then they followed the irregularly spaced footprints across to the edge.

"He was still on his feet — but that's about all," the battle officer said.

"George, can you operate that Spider boat?" The admiral indicated the Djann landing sled.

"Certainly."

"Let's go."

It was twilight half an hour later when the admiral, peering through the obscuring haze, saw the snow-drifted shapes huddled in the shadow of an overhang. Fifty feet lower, the general settled the sled into a precarious landing on a narrow shelf. It was a ten minute climb back to their objective.

Vice Admiral Carnaby pulled himself up the last yard, looked across the icy ledge at the figure in the faded blue polyon cold

suit. He saw the weathered and lined face, glazed with ice; the closed eyes, the gnarled and bloody hands, the great wound in the side.

The general came up beside him, stared silently, then went forward.

"I'm sorry, Admiral," he said a moment later. "He's dead. Frozen. Both of them."

The admiral came up, went to Carnaby's side.

"I'm sorry, Jimmy," he said. "Sorry."

"I don't understand," the general said. "He could have stayed up above, in the station. He'd have been all right there. What in the world was he doing down here?"

"What he always did," Admiral Carnaby said. "His duty."

— KEITH LAUMER



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FAIR TEST

by ROBIN SCOTT

*How odd these Earthmen were!
Their most bitter differences
were only a matter of taste!*

The breakdown at high velocity had cost them nearly six weeks of arduous toil in their cumbersome space gear to repair and had shot them outward — dangerously low on fuel and food — far from civilization, out toward the very rim of the galaxy.

G'ard and his mate E'lim had little choice; even should their fuel hold out — which was highly doubtful — they would be reduced to eating the *mahl*-hide covers of the navigation tables long before they reached a Mervais outpost.

They had to find fuel and food.

G'ard consulted the tables and set course for the nearest likely star, a faint, negative-magnitude yellow whose size and age showed some promise of planetary development.

As the old yellow brightened in the forward screens, the table-

scope gave encouraging news. There were nine planets. After deceleration, however, the odds narrowed considerably. There appeared to be only one planet whose temperature range and spectrographic profile indicated some likelihood of affording both fuel and protoplasmic life suitable for food. This planet, the third from its sun, was inspected at close range, and after twenty orbits G'ard conned the ship to a smooth landing on one of the major land-masses in the northern hemisphere.

Unfortunately, the blast of landing destroyed several square *poods* of some sort of grain crop, and when G'ard stepped down from the ship to begin his hunt for fuel, he was met by an irate farmer who — no doubt angry at the destruction

of his fields and shocked by G'ard's resemblance to one of the fiercer forms of carnivorous life on the planet — delivered the contents of both barrels of an over-and-under .410 shotgun at him. The pellets, of course, did not penetrate the Mervais' thick hide, and with the translator held to his lips, he tried his best to placate the farmer. The translator had been stocked with planetary phrases gleaned from monitoring twelve or fourteen channels of communications during the twenty orbits of inspection.

"Double your pleasure, double your fun!" said G'ard, his three left arms raised in formal salute.

"Jesus Christ!" said the farmer and ran pell-mell back to his miserable shack huddled at the edge of the burned field.

G'ard fiddled with the controls of the translator and shouted after the fleeing farmer: "We need only food and fuel! Your cooperation will be greatly appreciated! This is a public service announcement!" But the farmer paid no attention.

Poor as it was, the shack was equipped with a telephone line, and by the time E'lim had read off the fuel detector and dropped the ship's fuel inductor hose down the farmer's well, there was the scream of sirens, and a portly individual equipped with a rubber truncheon and a pistol, accom-

panied by a dozen similarly equipped deputies, arrived in the farmyard. E'lim retreated into the ship and started the inductor pumps to fill the ship's tanks.

G'ard boosted the translator volume to full and spoke again: "We come in peace in our time. We want nothing but a full grocery cart and a tiger in our tank! Live light! Live modern! With G'ard and E'lim! Progress is our middle name!"

A crowd began to gather. It grew larger and segregated itself automatically into two slightly intermingling groups. E'lim appeared with the fat reel of corral tape and began to lay it — white and bright — in two adjoining fan-shaped wedges extending out from the ship for the best part of a pood.

The crowd scattered at first, and there were ineffectual shots from the portly one and his assistants. But after E'lim had finished and returned to the ship, the crowd surged back again to gape open-mouthed at its vast bulk. The portly one with the truncheon, frustrated at his impotence, spoke angrily over the communicator in his vehicle and then called his assistants to him. They could do nothing about the ship until reinforcements arrived; there remained only the crowd. They found the white tapes con-

venient to mark the division between the two groups, and they used their truncheons to keep the groups segregated. A small person with a white truck began to sell some sort of confection; he sold first to one group and then to the other. He was the only one beside the men with truncheons who seemed to be able to pass freely from one group to the other.

E'lim signaled to G'ard that the tanks were full. G'ard counted the crowd. Off in the distance there was the rumble of armored vehicles, and overhead the ominous drone of aircraft.

G'ard turned the translator to full volume again. "Thank you," he said. "Thank you for tuning in! You have been a wonderful audience!"

He withdrew into the ship and reeled in the inductor hose and the corral tapes. When all was in place, he closed the cargo hatch and started the engines for take-off.

That evening, after the complex course back to the heart of the galaxy had been calculated and fed into the autopilot, G'ard and E'lim relaxed over their evening meal. G'ard said: "I'm sorry we couldn't stay longer to study that curious planet. I've gone over the translator input material a bit, and I think I can explain why that thick one with the weapon separated all those

other ones into two groups."

"Oh really?" said E'lim. "I wondered about that."

"Yes," said G'ard. "Seems there is some subtle difference among these creatures, although G'loog knows they looked enough alike."

"What is it?" inquired E'lim.

"Some have darker skins than others," said G'ard. "Here, look. This is a photograph I made while we were loading fuel. Notice, the thick one has made all those with dark skins stand *here*, and all those with light skins stand *there*."

E'lim shook her head in wonderment, her polished tusks gleaming in the dying light of the cooking fire. "Imagine that. Such a tiny difference!"

"Apparently they believe there is a real substantive difference between the light-skinned ones and the dark-skinned ones."

E'lim shook her head again. "How strange. I'm sure they must be the same species."

"Of course," said G'ard. "But maybe they know something about themselves we weren't able to observe."

E'lim shrugged and began to clear the table of the remains of their dinner. "Could be," she said. "I'll fix one of the light-skinned ones for dinner tomorrow night, and we can compare for ourselves." — ROBIN SCOTT

**for
your
information**



BY WILLY LEY

THE ORBITS OF THE COMETS

The time has come for one more column devoted exclusively to questions from the readers. The first of them concerns comets, and the letter I have reads: "I can't quite figure out whether I am supposed to consider them as members of the solar system or as interlopers from space. If I knew whether

most of them orbit in the plane of the ecliptic it would help me make up my mind, but I haven't been able to find that much out. Do you know the answer to that one?"

Well, I *think* I do, but let everybody judge for himself after I have presented the material.

The early astronomers who considered comets celestial phenomena—the Aristotelian philosophers insisted that they were atmospheric phenomena—did not say much about the shape of their orbits. Johannes Kepler went on record as thinking that the orbits of comets were probably straight lines and not closed curves like the orbits of the planets. Until the time of Dr. Edmond Halley every comet was taken to be a one-time visitor to the sun and to the solar system, and Halley himself held that belief at first. In around 1700 Halley began assembling a table of comets that had been well reported as to time and position in the sky and came to the conclusion that the comets of 1531, 1607 and 1682 might have been the same comet. If so, it would return in 1758.

Halley did not live to see the return of the comet which then was named after him, but this return proved that there was at least one comet that moved in a closed orbit. Of course astronomers started to watch for other

comets with even greater interest than before, and the main question asked of each newly discovered comet was whether it was a "periodic comet" (with a closed orbit) or a non-periodic comet, a one-time visitor to the sun. By about the year 1900 the position of most astronomers was that comets were visitors from deep space. But a certain percentage of these comets had the bad luck to pass close to a planet on such a visit, and the gravitational disturbance in the comet orbit caused by the planet could easily force that comet to assume a new orbit, a closed orbit. The planets were, therefore, responsible for the existence of periodic comets, and the larger the planet the more periodic comets could be credited to it. The periodic comets clearly indicated which planet had made them periodic; the aphelion of the new orbit was, as a rule, a little farther from the sun than the orbit of the planet that had caused the "capture." It became customary to refer to the comets captured by the same planet as the "comet family" of that planet, and nobody was surprised to learn that Jupiter had the most in its comet family.

Of course the periodic comets had elliptical orbits, while the orbits of the non-periodic comets were said to be parabolic orbits—though it was much more prob-

able that these orbits really were hyperbolas.

Naturally, the larger the number of apparent positions in the sky that have been observed and recorded, the more reliable the calculation of the comet's orbit. Early in this century professor A. O. Leuschner of the University of California noticed that comets that had been observed for only a short time were always said to have had parabolic orbits. Leuschner then made himself a table of comet orbits and paid special attention to the length of time a particular comet had been under observation.

The result, published by the Astronomical Society of the Pacific in April, 1907, caused a great deal of second thoughts. Condensed, Leuschner's findings were the following:

Number of days a comet was under observation:	Number of orbits found to be parabolic:
100 - 239 days	55 per cent
1 - 99 days	13 per cent
240 - 511 days	68 per cent

This seemed to indicate that at least a large number of those orbits that had been thought to be parabolic might have turned out to be very elongated ellipses if that comet could have been observed for a longer time. Professor Leuschner concluded: "The theory that, in general, comets

are permanent members of our solar system seems to have been greatly strengthened by the foregoing preliminary statistics."

The first result was the recalculation of a few orbits, Comet 1886 II had been thought to have had an open orbit. The German mathematician Thraen showed that a more careful calculation produced an elliptical orbit. Professor Elis Stromgren in Copenhagen went over the orbits of comets 1890 II and 1898 VII and concluded that one had reasons to doubt that these two comets had displayed hyperbolic orbits. All this led, gradually, to the concept of a "comet cloud," say half a light-year beyond the orbit of Neptune. Since this comet cloud was still under the gravitational influence of the sun and therefore had to move through space along with the sun, the comets, in general, were declared to be a part of the solar system.

Unfortunately the position of a comet orbit relative to the ecliptic is not a touchstone as to its membership in the solar system or not. When a comet (presumably coming from that comet cloud and approaching the sun for the first time) is captured by a planet its orbit is twisted violently, and the twist might well involve the third dimension, so that the final orbit forms a steep angle with the ecliptic. Comets

that travel at an angle of very nearly 90 degrees but are very definitely periodic have been put on record. It is true, though, that the short-period comets do not deviate from the plane of the ecliptic very much.

Even if that comet cloud half a light-year away should not exist, the vast majority of all comets must be considered permanent members of the solar system, even those with an orbital period of 2000 years. (Several such are known.) But a planet can also accelerate the speed of a comet along its orbit, which means that an elongated ellipse could be changed into a hyperbola. If that is the case the comet would leave our solar system and could, after a very long time, approach another solar system.

Since this has been seen to happen in our own solar system, we must assume that it can happen in another solar system too. Therefore a new comet could be a stray from deep space, but it would literally be one in a million.

The vanished elements

This section was prompted by a letter from an executive in Chicago who asked "whatever became of virginium?" He explained that he had learned about the then recent discovery of the ele-

ment virginium while in college, but that his later work did not involve chemistry in any form or shape, not even remotely. Recently his son brought a modern version of the Periodic Table into the house. My correspondent remembered virginium, could not find it in the table, and both he and his son concluded that it must be there under a different name. "But," he wrote, "I always thought that the discoverer of something gives it its name and that this name is permanent."

Yes, that is true; the rule is that the name is given by the discoverer or else by somebody else with the approval of the discoverer. If the discoverer does not approve somebody else's suggestion that suggestion is discarded. This happened in the case of Jupiter-V, the fifth moon of Jupiter to be discovered and the one that is closest to the planet. It was discovered (at midnight on September 9, 1892) by the American astronomer Edward Emerson Barnard. The French astronomer Camille Flammarion suggested that it be named Amalthea, in Greek mythology the nursemaid of Jupiter, but Barnard rejected the suggestion. By then everybody was talking about "the fifth moon of Jupiter," and Barnard insisted on the designation Jupiter-V. Only during the last twenty years the name Amalthea

has been slowly creeping into usage.

But for the name given by the discoverer, or approved by the discoverer, to become "official" two conditions must be fulfilled. The first is that it has not been used earlier for something else. An English zoologist learned that lesson when he named a mammal from Australia that was just becoming known "platypus." It turned out that about ten years earlier a German zoologist had given that name to a genus of small beetles. Since the beetles had that name first they retained it, and the Australian platypus had to be renamed; its zoological name is *Ornithorhynchus*.

The second condition is that the discoverer had to be right, in other words that he actually made a discovery. And that is where "virginium" fell down. The announcement had been a mistake. It had been made in 1929 by Dr. Fred Allison of the Alabama Polytechnic Institute, and he had named "his" element after the state in which he was born. It is not quite known what he had done wrong; apparently he used a misleading method of analysis.

Of course mistakes in the chemistry of the lesser known elements had been made before. Around the year 1825 the Swedish chemist Carl Gustaf Mosander, a friend of Jons Jakob Berzelius,

had announced an "earth" which he called "didymia," from the Greek word for "twin" because it seemed to him to be a twin of lanthanum. The term "earth" was then used for substances that could not be dissolved in water or in alcohol but could be dissolved in acids. The chemists of that time already knew that an "earth" was usually the oxide or the carbonate (and sometimes a sulphide) of a metal. If Mosander had succeeded in isolating the metal in his "didymia," the metal would have received the name of didymium. Mosander never did succeed; and sixty years later, in 1885, the Austrian chemist Carl Auer, Baron von Welsbach, showed why. "Didymia" was a mixture of praseodymia and neodymia, two of the so-called rare earth elements. A little later Auer von Welsbach—some of my readers may be old enough to remember the "Welsbach mantle"—discovered two more of these elements and named them cassiopeium and aldebaranium. But this time he had come too late. The French chemist Georges Urbain had discovered them earlier and had named them lutetium (the cassiopeium of Welsbach) and neoytterbium, later shortened to ytterbium.

Then George Urbain made a mistake, and the English chemist Henry Gwyn-Jeffries Moseley

proved it to him. Urbain was delighted, not because he had made a mistake but because Moseley's proof involved a new method for arranging the table of the elements. Mendeleeff had arranged them by atomic weight. Moseley did it by "atomic number," namely the number of electrons around an atom which, in turn, shows the number of atomic charges in the nucleus. This did not change the Periodic Table very much, but it made it more precise. Because of Moseley's numbers one could state, positively that in 1916 only elements #43, #61, #72, #85, #87 and #91 were still missing, plus possible elements heavier than uranium (#92).

Mistakes like Allison's with his "virginium" were caused by the systematic hunt for these missing elements. To begin with the lightest, the German team of Dr. Ida Tacke and Dr. Walter Noddack announced in 1925 that they had discovered #43 which they named "masurium" and #75 which they named rhenium. "Masurium" was put in quotation marks because it was a mistake; rhenium was a discovery. Nowadays #43 is named technetium. It does not have any stable isotopes, though one of these isotopes has an impressively long half-life, namely 210,000 years.

The missing #61 was announced in 1927 by Professor B. Smith

Hopkins of the University of Illinois and named "illinium." At about the same time Professor Luigi Rolla of the University of Florence thought that he had discovered it and named it "florentium." It was not actually discovered until 1945 and is now called promethium. Like #43 it has no stable isotopes and the one with the longest half-life has one of only 2.6 years.

In 1911 George Urbain thought that he had discovered #72 and had named it "celtium" (this was the mistake where Moseley showed him that he had been wrong; it was a mixture of several elements). The actual discovery took place in Copenhagen in 1923 (hence the name hafnium from the Latin name of Copenhagen), but the discoverers were not Danes. They were the Hungarian George von Hevesy and the Dutchman Dirk Coster.

Element #85 was announced in 1931 by Fred Allison and Edgar J. Murphy and, since they were working in Alabama, they called it "alabamine." It is now called astatine (for "unstable") because it has no stable isotopes. The one with the longest half-life can boast only 8.3 hours. The actual discovery took place in 1940.

And now we come to #87, the "virginium" that has caused the whole discussion. It had still another name; the Roumanian

chemist Horia Hulubei wanted to name it "moldavium" after the river Moldau in Bohemia. He was mistaken too, and it was Made-moiselle Marguerite Perey in Paris, who could show that #87 was present in a substance she was investigating. That was in 1939, and the name became francium. It is even less stable than any of the others. The longest-lived isotope of francium known has a half-life of only 22 minutes.

This leaves element #91, and here we have a case where the discoverer did not have his way in naming it. It was discovered in 1917 by Otto Hahn and Lise Meitner, and they called it protoactinium; the name was soon shortened to protactinium. But then Otto Hahn found that it was identical with an element discovered in 1913 by Kasimir Fajans and O. H. Goehring. They had found a substance with a half-life of a little less than 1.2 minutes. Since it was so short-lived they had named it "brevium," from Latin *breve* which means "short"; a lawyer's "brief" is derived from the same word — except that it usually isn't. Hahn said the name brevium should go to the element found by him and Lise Meitner since Fajans and Goehring had found it first and named it. But he had to admit that the half-life of his discovery was "over 1200 years" and the

various international scientific organizations simply said "no" to Hahn. They would not accept the name "brevium" for such an element.

As a matter of fact they were even more in the right than they thought, for the half-life of protactinium is 34,000 years.

The two Otto Hahns

The name of Otto Hahn was in the public eye in September 1966, partly because of the announcement that the first atomic-propelled ship built by West Germany had been named *Otto Hahn* and partly because the Enrico Fermi Award of the Atomic Energy Commission for 1966 was awarded to Otto Hahn, Lise Meitner and Fritz Strassmann. It was the first time that this award was given to foreign scientists, and the *New York Times* reported this fact.

Three days later I received a letter containing the clipping from the *Times*. The writer of the letter wanted to know whether the Otto Hahn who had just received the Enrico Fermi Award and the Otto Hahn discussed on pp. 491-2 of my book *Watchers of the Skies* were related, maybe father and son. The Otto Hahn mentioned in my book had published, in 1880, a book on fossil organisms in chondritic meteor-

Year of Firing	Satellites still in orbit	Total number of orbiting pieces (including satellites)
1958	2	4
1959	3	5
1960	10	27
1961	11	24 (+ 210)
1962	14	47
1963	21	69 (+ 26)
1964	22	89
1965	62	169 (+ 120 + 240 + 14)
1966	32	103
(until Sept. 12)	177	537

ites, a theme that was revived a few years ago.

Though I own a copy of the book by this earlier Otto Hahn, I have not been able to find out much about him. But the Otto Hahn who discovered protactinium and later uranium fission was born in Frankfurt am Main on March 8, 1879, and his father's Christian name had been Heinrich, and he had not been a scientist, not even an amateur scientist. He came from a family of grape growers and settled in Frankfurt as a glazier.

Since the name Hahn is not rare in Germany, and Otto is one of the most common given names in Germany—my own father was named Otto—I think it is safe to say that the two Otto Hahns are not related at all.

The number of artificial satellites

Sometimes the reply to a short question has to be fairly long, and here is a case in point. The question was on a postcard from a reader in Portland, Oregon, and it simply said: "Could you tell me how many artificial satellites are in orbit right now?" The postmark said that this postcard had been mailed on September 13, 1966, when Gemini XI was in orbit, a fact which may have triggered the question.

Well, with the aid of the *Satellite Situation Reports* of the Goddard Space Flight Center in Greenbelt, Maryland, I can attempt an answer, but my answer may be off by two or three satellites and a dozen or two of other orbiting "space junk."

The table includes Gemini XI which has meanwhile returned to earth. One of the Russian Cosmos satellites re-entered at the same time so that on September 15 the number of orbiting satellites was 175.

On the same date two satellites (Russia's Luna 10 and America's Lunar Orbiter I) were in orbit around the moon and will stay in orbit around the moon, while a total of 27 planetary probes (including some upper stages of the rockets that put them into these orbits) were in orbit around the sun.

Now what about these figures in parantheses, the (+210) for 1961 and the three figures for 1965? These are small pieces resulting from unexplained explosions. Presumably so-called "destruct charges" went into action when they shouldn't have, or the remaining fuel in an orbiting top stage exploded. The (+120) and (+14) in 1965 are of Russian origin; the others originated with American shots.

Such small pieces rarely stay in orbit for very long, so that the figures given in my tabulation do not hold true any more when this issue of the magazine reaches its readers.

Another reader, also living in Chicago, came up with an interesting question. He wrote that he knew that our solar system is about two thirds of the distance from the center of our galaxy to its rim so that, if we accept the figure of 50,000 light-years for the radius of the galaxy we are roughly 33,000 light-years from the center. He added that he also knew that we cannot see the center of our galaxy because of intervening clouds of cosmic dust. But, he said, if the center were visible to us, in which direction would I have to look? His astronomy book did not tell him that.

No, most astronomy books don't, as I found out when I started to dig a little in order to answer the question. But here is the prescription: arm yourself with a star chart, wait for a clear night, get out of the city and then try to find the constellation of Sagittarius. Look at the approximate center of that constellation and you are looking in the direction of the center of our galaxy. Too bad we can't actually see it, it would be a glorious sight to behold.

— WILLY LEV



THE NEW MEMBER

by CHRISTOPHER ANVIL

*Bongolia was not the biggest of
the United Nations — but for at
least a time it was the loudest!*

Badibax, Bangolia, March 15th. Dr. Hodiroy Dabigam, newly elected president of the Republic of the United Bongolias, today presided in ceremonies during which the flag of the Bongolian Republic was raised over the Sanctuary, the principal building of the capital city of Badibax. The Sanctuary, built in the fourteenth century by European traders, was today rechristened Palace of the Presidents by Dr. Hodiroy, who was cheered by an enthusiastic crowd estimated by newsmen at around four thousand. Dr. Hodiroy announced that Bangolia will seek admission to the United Nations, in order to "take our rightful place in the councils of the mighty." Vice admiral K. C. Baines, commander of the U. S. 34th Fleet, was among

the American representatives at the ceremony, which was also attended by delegations from a number of other nations, including communist China.

New York, April 1st. The Republic of the United Bangolias today was officially admitted to the United Nations.

New York, April 2nd. Sodibox Gozinaz Hodiroy, head of the Bongolian delegation to the United Nations, today demanded that Bongolia be admitted to a seat on the Security Council. Mr. Sodibox charged that it is unfair to have only a comparatively few nations represented on the Security Council. "Who are they?" he demanded. "Is this right? They are few. We are many. Why should they have

it and not we?" Mr. Sodibox, who spoke in native costume, also charged that many crimes had been committed against his country by the European traders who established themselves in the fourteenth century at the Bongolian capital, Badibax. Mr. Sodibox stated that it was not known just what nation these traders belonged to, but he charged that their presence had held back the development of Bongolian culture, reduced his nation to peonage and wreaked tremendous physical and psychological damage upon his people, damage which still manifested itself today. Mr. Sodibox demanded that reparations be paid by all the European nations, plus the U. S., Canada, Mexico, Australia, New Zealand and the "other colonialist powers responsible for the outrage."

Washington, April 4th. When asked today what the U. S. proposed to do about the Bongolian demand for reparations, the Secretary of State replied that he was a little puzzled by Mr. Sodibox's charge, insofar as the United States did not exist in the fourteenth century, when the alleged crimes took place. The fourteenth century, he pointed out, includes dates from the beginning of the year 1300 through to the end of the year

1399, and the American continent was not even discovered by Columbus till 1492, one hundred years later. The United States, he said, sympathized with the Bongolian Republic, but naturally could not be expected to pay for crimes it had never committed.

New York, April 4th. Sodibox Gozinaz Hodiroy, chief of the Bongolian delegation to the United Nations, today charged the American Secretary of State with bad faith. In an impassioned speech, Mr. Sodibox declared, "*Look at my people!* Have they not suffered? It is the American imperialists who have committed this crime! They are responsible! And when they are called to account before the councils of the mighty they try to squirm out by some jugglery with numbers! Are numbers more important than the sufferings of my people?"

Washington, April 6th. In his news conference this morning, the President was asked his views on the Bongolian crisis. After a considerable pause, he replied that while the United States felt great sympathy for all who suffered from poverty and want, nevertheless the United States could not accept the blame for a crime committed by

persons unknown, some four hundred years before the United States was founded.

Badibax, Bongolia, April 10th. Speaking before a roaring crowd officially estimated at some seventeen thousand, President Dr. Hodiroy Dabigam accused the United States of "treason to the principle of self-determination of the nations, treason to the principal of responsibility for past crimes, treason against race, religion, color, national origin, and the payments of past debts."

He likened the U. S. President to a dog licking up the vomit of another dog, whom he identified as the U. S. Secretary of State. President Dr. Hodiroy warned that "the sovereign peoples of the world will not long ignore such insults as these." The Americans, he stated, are running dogs for the nations of Europe, which seek to escape their responsibility for the crimes against Bongolia, and the Americans moreover are descendants of these Europeans, and therefore in it with them. America, President Dr. Hodiroy warned, had best beware, lest the dispossessed nations of South America, Africa, Asia and all the world rise in one body, led by the Republic of the United Bongolias, and "claim the vengeance which has been unpaid

now for six hundred years." At the climax of President Hodiroy's speech, the U. S. flag was burned, the Secretary of State was hanged in effigy, and an effigy of the American president was thrown into the streets to be spat upon, defiled and picked to pieces by the frenzied mob. In addition, three U. S. sailors were reported missing.

New York, April 11th. Sodibox Gozinaz Hodiroy, speaking to reporters, today charged that the riots in Bongolia "were fomented by the inflammatory speeches of the American President and Secretary of State, who are therefore personally responsible for them. They have caused them by their refusal to pay for their crimes." Mr. Sodibox was asked by one reporter for the date of his birth. Mr. Sodibox replied that he was forty-one years old. The reporter then asked Mr. Sodibox what he would do if he were charged with a rape that had occurred fifty years ago. Mr. Sodibox refused to answer the question.

Washington, April 14th. Senator Clyde Deebing today called for "immediate full-scale economic aid to the Bongolian Republic," which he said "would otherwise be in danger of falling into the hands of the com-

munists." In an unprecedented scene, Senator Deebling was booed for fifteen minutes and finally forced to sit down. The view here is that the government of Bongolia is lucky not to have done all this a hundred years ago. But since war between the present-day U. S. and Bongolia, which in actuality is a moderately large island in the Sadinak Straits, would be ridiculous, we are in a predicament to know just what to do about it. A great many congressmen, meanwhile, report receiving angry telegrams from their constituents demanding to know what has happened to the American sailors.

New York, April 14th. A number of delegates from Afro-Asian countries are reportedly urging Sodibox Gozinaz, head of the delegation from Bongolia, to take it slower in his attacks on the U. S. These delegates, it is reported, feel that Mr. Sodibox is rousing antagonisms that will not help their efforts to obtain more economic aid from the U. S.

New York, April 14th. Sodibox Gozinaz Hodiroy, the Bongolian delegate to the U.N., today charged Great Britain, France, Spain, Italy, the Netherlands, the Soviet Union and Greece, with complicity in the

attempt to avoid payment for the depredations of European traders who invaded Bongolia in the fourteenth century. Since it is not known exactly what nationality these traders were, Mr. Sodibox affirmed his government's position that "all alike must share in the responsibility." Mr. Sodibox estimates the damage done to Bongolia by the traders at two billion kittagotigs. The kittagotig is the new official unit of Bongolian currency. Its value is fixed by the Bongolian government at twice the value of the U. S. dollar.

Badibax, Bongolia, April 15th. No satisfactory answer having been received from the governments of Great Britain, France, Spain, Italy, the Netherlands, the Soviet Union and Greece, President Dr. Hodiroy Dabigam, speaking to a frenzied rally estimated officially at 40,000 persons, stated that these nations, along with the United States and other guilty parties, owed the Bongolian Republic two billion kittagotigs, plus interest compounded annually at twelve per cent since the year 1300, for their "infamous crimes against the Bongolian peoples, crimes including rape, incest, murder, pillage, brutality, usury, extortion and seizure of lands public and private." At

the climax of his speech, President Dr. Hodiroy personally hurled down to the mob effigies of the chiefs of state of Great Britain, France, Spain, Italy, the Netherlands, the Soviet Union and Greece, which were spat on, defiled and kicked around the public square. Later, the national flags of these nations were lashed with whips, pounded with clubs and then burned to the frenzied cheers of the mob.

New York, April 16th. Sodibox Gozinaz Hodiroy, chief of the delegation from the Republic of the United Bongolias, appeared in the U. N. General Assembly this morning, wearing his national costume, with the addition of four dried hands dangling from the front and rear of a strap worn across his left shoulder. These hands, Mr. Sodibox said, are "symbols of the suffering of my people at the hands of the foreign exploiters." When asked where these dried hands came from, Mr. Sodibox replied that they were obtained from "enemies of the state."

Washington, April 16th. "Unimpeachable government sources" state today that repeated queries to the Bongolian government about the fate of the

three missing U. S. sailors have gone unanswered.

Badibax, Bongolia, April 17th. Persistent rumors are reported here that two white Americans and a Negro American are being exhibited in wooden cages in a kind of carnival held on the outskirts of Badibax. Sharp-edged shells, it is reported, are thrown through the bars at the prisoners, and those who hit them win prizes. The description of these men matches that of the mission U. S. sailors.

With the 34th Fleet in the Straits of Sadinak, April 18th. A predawn raid by U. S. Marines this morning recovered the three U. S. sailors missing for more than a week. All three men are reported in serious condition, suffering from hunger, thirst, loss of blood and many deep and badly infected cuts.

New York, April 18th. In an impassioned speech before the U. N. General Assembly, Mr. Sodibox Gozinaz Hodiroy, his face smeared with blood and dirt, and wearing the Bongolian "suit of eighteen pleading heads," made an impassioned attack upon the United States for its "arrogant interference in Bongolian domestic affairs." He charged the U. S. with "aggres-

sion, provocation, trespass and the theft of Bongolian Government prisoners." Mr. Sodibox likened the U. S. to a rich landowner who steals chickens from his impoverished neighbor. As Mr. Sodibox reached the climax of his speech, one of the dried heads slipped loose from its rawhide thong, fell on the table and rolled off onto the floor. The General Assembly adjourned early, without voting on Mr. Sodibox's demand for a vote of censure against the U. S.

Badibax, Bongolia, April 19th. In an impassioned speech to a frenzied mob officially estimated at eighty thousand persons, President Dr. Hodiroy Dabigam accused the U. S. of "wanton naked aggression against the sovereign state of the Republic of the United Bongolias" and warned that "all oppressed peoples of the world will rise up behind the Bongolian martyrs and hurl themselves upon the American aggressors in a holy bonganap." (The Bongolian word "bonganap" is not directly translatable. It does not mean "war" or "crusade," but refers more to the slaughter of the enemy, followed by the breaking of the bones of the enemy dead. This is considered to cause further pain to those who have already been killed.) President Dr.

Hodiroy further accused the American Marines of cowardice, charging that they came armed with modern weapons "only because they are afraid to fight like men, with spears, knives, and stranglegwhips." (The "stranglegwhip" is a long, slender cord with heavy knout at the end. It is said that skillful wielders of this weapon can coil it around an enemy's neck from behind, without coming close enough for him to hear their approach; then, by clever manipulation of the whip, the wielder can strangle the enemy to death without ever getting close enough for the enemy to strike back.) President Dr. Hodiroy further announced that he holds the U. S. president "personally and immediately responsible for this outrage and hereby demands a full and immediate explanation and apology for this unwarranted intrusion upon sovereign Bongolian territory. Otherwise the U. S. will be subject to retaliation by the full weight of Bongolian military might." It is reported that nearly four hundred Chinese communist technicians, military advisors and specialists in guerilla warfare have arrived in Bongolia since the beginning of the year.

With the 34th Fleet near the Straits of Sadinak, April 19th.

Vice Admiral K. C. Baines, commander of naval forces here, has reportedly been petitioned by his contingent of Marines, many of whom wish to go ashore at Badibax in answer to the Bongolian president's accusation of "cowardice." The story is that the Marines would be happy to go after the Bongolian armed only with belts, bayonets or barehanded and are confident they could "clean the place out in an hour." One enlisted man described the capital city of Badibax as "about a medium-sized town, with the ocean in front, the jungle behind, the Kratigatik River to the west and the Chicago dump to the east."

New York, April 19th. Afro-Asian members of the U. N. are visibly shunning the Bongolian delegation. This appears to be in response to the widely quoted Bongolian claim that "Bongolian is the natural leader of the Afro-Asian bloc." Mr. Sodibox Gozinaz, speaking to reporters, today reasserted this position, charging that the other Afro-Asian nations "are backward and have no culture."

Washington, April 19th. Usually reliable sources here state that there is no truth to the humor currently circulating that

the U. S. plans a punitive expedition against the Bongolians. An official spokesman stated, "We've got our men back, and that's what we were after." Asked about the personal feelings of high government officials toward the Bongolians, the spokesman refused comment.

Badibax, Bongolia, April 20th. Addressing a huge rally and speaking from the Palace of the Presidents, President Dr. Hodiroy Dabigam announced tonight completion of a new treaty with communist China. This treaty, President Dr. Hodiroy told the cheering crowd provides for economic assistance and mutual aid and defense. Accordingly, said Dr. Hodiroy, he hereby calls upon communist China "to come at once to the aid of oppressed Bongolia." Amid the wild cheers of a crowd officially estimated at one hundred thousand, President Dr. Hodiroy declared, "we now call upon our pledged allies to hurl themselves at once into universal mortal conflict at all points with the mutual enemy who has sullied the soil of the Republic of the United Bongolias. We will do the same, in turn, if our ally is ever attacked."

Peking, April 21st. No word has yet been announced here

about the "American aggression" in rescuing three captured U. S. sailors from the Bongolians. There is also no word about the treaty.

Moscow, April 23rd. A high Soviet official contacted here today was asked about the apparent predominance of Chinese communist influence in Bongolia. He replied smilingly that he understood that the Chinese were not perfectly happy with their new ally, but the Soviet Union "does not wish to interfere."

Badibax, Bongolia, April 24th. President Dr. Hodiroy Dabigam, addressing a wildly enthusiastic crowd officially estimated at a quarter of a million persons, called again tonight for the "immediate destruction by our Chinese allies of the American imperialists who committed rapine, murder, trespass and larceny against our people by their brutal armed aggression." President Dr. Hodiroy injected a new note into the demand by observing, "We have over four hundred Chinese here — they are in our power, remember."

New York, April 25th. The head of the Bongolian delegation, Sodibox Gozinaz Hodiroy attempted to speak today, but

the hall emptied so rapidly that he was left with no audience. Mr. Sodibox was wearing his "suit of eighteen pleading heads." A number of delegates, interviewed outside, stated that in their opinion the admission of Bongolia to the world body had been "premature."

Washington, April 26th. A number of U. S. senators and congressmen are reportedly agreed that the whole body of assumptions underlying the U. S. attitude toward the U. N. and many foreign nations needs to be re-examined. The "Bongolian mess" was the reason named by most of them for crystallizing this belief.

Peking, April 27th. In a formal warning to President Dr. Hodiroy Dabigam, the Chinese communist government today called for the immediate release of any Chinese nationals now held by the Bongolians as hostages. "Serious consequences may result," the Chinese warn, if these hostages are not immediately released unharmed.

Badibax, Bongolia, April 28th. President Dr. Hodiroy Dabigam, in an impassioned speech to an officially estimated half-million persons, today declared "bongana" (war to the death, and then

smash the enemy's bones) against the Chinese communists that he charged are trying to take over the island.

New York, April 28th. Sodibox Gozinaz Hodiroy, head of the Bongolian delegation to the U. N., today called upon the world body to unite in defense of a member nation and destroy communist China. The Chinese, Mr. Sodibox declared, are "heavily invading Bongolia despite heroic resistance by the Bongolian armed forces." No action was taken by the U. N., pending further information.

With the 34th Fleet in the Straits of Sadinak, April 28th. Firing from Bongolia could be heard tonight on board ships of the 34th Fleet cruising outside Bongolian territorial waters. If the Chinese are putting fresh "invasion troops" ashore here, they must be landing them from invisible ships. Aerial observation all day has revealed nothing remotely like a seaborne invasion force.

Badibax, Bongolia, April 30th. President Dr. Hodiroy Dabigam announced today that he has assumed "immediate full control over all Bongolian land, sea, air and space forces, with the rank of Field-Marshal General." Presi-

dent Dr. Field-Marshal General Hodiroy then announced completion of the successful bonganap against the Chinese communists by a "flank-attack combined with reverse enfilade fire by a seaborne invasion force of shock troops under my direct command." President Dr. Field-Marshal General Hodiroy then warned all states, singly and collectively, to consider this result of Bongolian Armed Forces in action and heed the warning. "China," he said, "is a large country. But we have defeated her crushingly."

Moscow, April 30th. Word of the Bongolian statement on their "victory" over "Chinese invaders" reached a group of leading Soviet officials at an informal reception here tonight. The Russians made no official statement, but were reported by the Americans present to have "gone into hysterics" after reading the Bongolian victory announcement.

Peking, April 30th. On the eve of the big May Day celebration, the mood of high officials in this capital can only be described by the image of a volcano pent up under a layer of ice five miles thick.

Washington, May 1st. Ships of the U. S. 34th Fleet, operating in the Sadinak Straits, are reported

to have fished a large number of Chinese survivors out of the waters off Bongolia. Owing to the mutual anti-Bongolian sentiment, the Chinese appear to have talked freely to U. S. intelligence officers. What evidently happened was that the Bongolians, armed with weapons supplied by the Chinese, carried out a night sneak attack against the Chinese, who were outnumbered and mostly split up into small groups to begin with. The Chinese were slaughtered piecemeal, no more than perhaps one out of five having gotten away, many of these seriously wounded.

New York, May 2nd. At a meeting of the Security Council today, it was unanimously decided to take no action on the Bongolian charge of Chinese aggression.

New York, May 3rd. Sodibox Gozinaz Hodiroy, head of the Bongolian delegation to the United Nations, today announced that "the free and sovereign nation of the Republic of the United

Bongolias hereby breaks and severs all relations with the United Nations, unilaterally and irrevocably permanently withdraws from the United Nations and declares 'doziwak' (this word, "doziwak," does not mean "war" but a peculiarly devastating insult; it is not directly translatable from the Bongolian) upon the United Nations and all the members thereof." Mr. Sodibox, who donned his "suit of the fourteen angry heads" before speaking, immediately left the U. N. Building followed by the rest of his delegation. Upon leaving the U. N. grounds, Mr. Sodibox was at once arrested by the New York City police, on suspicion of murder.

New York, May 3rd. The Police Commissioner denied today that the New York police had any intention of releasing Sodibox Gozinaz Hodiroy or his accomplices, "till we find out where all those dried heads came from. They got those heads off of somebody. The question is — Who?"

— CHRISTOPHER ANVIL

THE ROAD TO THE RIM

by A. Bertram Chandler

RETIEF, WAR CRIMINAL

by Keith Laumer

— and many more in the April IF, on sale now!

The Young Priests Of Adytum 199

by JAMES McKIMMEY

*They owned their world outright.
It didn't matter a bit that it was
only an oasis on a dead planet!*

Peter the Funny sat on a metal stool in one of the furthest rooms of a north leg of Adytum 199, gazing fondly at the wooden clarinet in his hands. He had discovered it in a time capsule buried in a peak on the western range. There had been an annotation attached, which read: "Used by Benny Goodman, during his Carnegie Hall Concert."

To Peter there was no historic quality in the discovery of an instrument he'd never seen before,

or of the other memorabilia, such as Goodman's Carnegie Hall album as well as his classical recording of Debussy's *First Rhapsody for Clarinet* with the Philharmonic Symphony, the baseball bat which had cracked out Willy Mays' 715th homer, the original draft of John Steinbeck's Nobel Prize speech, the rifle which had killed John F. Kennedy, the pair of Elvis Presley slacks, the bullet believed to be the first fired in the War of Viet Nam — all selected

by a committee assigned to bring together a collection of objects with a catholic range to represent a period of American history from 1935 to 1970.

Peter cared about nothing but the clarinet.

He placed a vintage LP on the turntable of the player kept in perfect repair by pressing the button which brought the Repair Robot. He half-closed his eyes and silently fingered the passages of Goodman's *Sing, Sing, Sing* solo. When it had been completed, he stopped the turntable and repeated the same musical phrases on the clarinet himself — perfectly.

Then he revised his embouchure and played an exemplary symphonic cadenza, this time employing the rounded, flutelike tone of the classical musician. Not wholly pleased, he repeated the phrasing again and again.

A thin young man, pale from his exile in this otherwise abandoned section of the Adytum, he wore narrow slacks and a bulky knit shirt which he'd worn when he'd defected from the Young Priests. His hair, which had been worn in the long page-boy style used by the rest, had repeatedly fallen over his eyes during practice sessions; he had cut it to a bristled close-cropped style more practical and comfortable.

After three hours of in-

tense, concentrated practice, Peter capped the mouthpiece and placed the clarinet carefully on a bench to walk into another room where food buttons lined a metal wall. He punched one, then held a plastic cup beneath a spigot. Synthetic, but nutritious, tomato soup poured forth. Before his defection he could not remember having tasted any other food than the hamburgers and shakes so loved by all the others. Here he had experimented; in the course of time he had quite naturally begun to eat a balanced diet.

Then he returned to his practice.

The Adytum used twenty-six square miles of underground space. Built into a tilted plateau in the Sierra Nevadas, its tunnels twisted through highly compressed schists and slates, granite and dibase, and the later Cretaceous, Tertiary sediments and volcanics. Supreme Government of the Western Hemisphere had originally evolved the plan and managed to maintain reasonable secrecy. The public at large was not informed of the purpose of the Adytums, but rather was led to believe that each represented a bomb-testing facility. During the final year before international destruction, panic had mounted so that mass runs on the un-

derground facilities would have been inevitable, creating impossible conditions of overcrowding. Consequently announcement of the availability of the retreats was made only after the first missiles had been released. Some were in deserts. Most were in mountains.

In the southern section of the Adytum the Young Priests walked naked through a shower room where mechanical arms soaped, rinsed and toweled their fat bodies to a remarkable state of cleanliness. Then, dressed in the same costume worn by Peter the Funny in his northern-wing retreat, an area of the Adytum dismissed two and a half years ago by the group as 'Crap-land,' they marched into the Burger 'n' Shake Room, where buttons were pushed and the consequent results were devoured. They sat along a table, shouting and laughing, twenty females, twenty males. The difference in sex was not identifiable from a distance, now that they were clothed. A discerning eye would have had to be closer.

As they ate, a steady sound came from an eternally running tape. It was one which had been produced electronically, creating a result which resembled a giant wind blowing through a clutter of loose cymbals, as an overriding 'voice' repeated, "Rabiddity-dow-bow, rabiddity-dow-bow." Par-

ents who had originally accompanied the Young Priests into the Adytum had suggested that the sound was a reminder of a deep-throated idiot making pleas of anguish. But that was before Sanguinary Day.

"Rabiddity-dow-bow," said one of forty.

"Rabiddity-dow-bow," said another.

"Rabiddity-dow-bow!" called the group in symphony.

In one of the few habits retained from the parental years, the group filed into the Dental Room, where gentle-handed robots scrubbed their teeth efficiently. It was perhaps because of this parent-gentleness that the habit was retained; it had also prevented tooth decay, if not obesity.

The group skipped into the Contraception Room to make the day safe for frolic. Motivation for this was based upon their combined philosophy: "Bring a kid into this lousy world?" Maternity Robots waited in the Birth Room, flawlessly efficient if buttons were pressed. But they had been in disuse since the group had arrived.

They dashed down a corridor to pick up their Survivo-Instruments: razor-bladed axes, with springing blades shooting from the butts of handles. They had

been used on Sanguinary Day. They were now carried not so much out of fear of attack by wild animal or alien survivor, neither of which they had seen for a very long time, but rather out of pride — realistic reminders of when they had hacked and cut apart that which they most resented.

They scampered down a glistening white corridor to an entrance-exit chamber, where they would leave the Adytum without effecting the climatizing of the structure's interior. There they stood straight and fat, breathing easily against the hissing sounds of transition. The first time they had ventured into this chamber — the result of a joint decision — they had hunched in fright as the process began. There might, they had known, have been radiation at this altitude. But the winds had been kind, failing to blow the fallout from the desecrated flatlands below. And so experience had bred nerve. When the broad door slid open, they rushed outside boldly, knowing that the warm time was precious, that winter would come soon, a time when they would be restricted to the interior until the snows again melted.

Roger, Debra, Sonny, Billy, Sue, Ellie, Howie — all forty ran along a path covered with dry pine needles fallen from trees

whose high branches shadowed the earth.

"Wheee!" screamed the girls.

"Shee — ute!" shouted the boys, in manly fashion.

The boys wrestled with each other, and the girls called encouragement. Mountains were craggy and brown with snowy tips. The sun was warm in a cloud-streaked sky. A lake lay in an oval of delicate blue, bordered by yellow sand. If there were wild animals to watch from the thick woods, they were too canny to reveal proximity. The boys and girls did not care. The boys wrestled. The girls shrieked.

Then the boys turned on the girls, who shrieked and ran. A cry exploded, "Do it!"

When the young people had accomplished that game, they ran again, over rocks, over fallen trees, through crevices, up and down the rises, into the small valleys, up again, down again, mindlessly, shouting, singing, "Rabidity-dow-bow . . .!"

They were who remained of the original eighty who had been the first to enter Adytum 199, following the emergency proclamation. The eighty had represented parents and children who had been attending Camp All Day, whose grounds had been but a few miles away.

The program of the camp had

been a relatively new innovation, though an inevitable one. As soon as the families arrived, the children were given control by the chief camp councillor, an esthetically inclined young man named Arthur Pomroy. The children were in the 12-14 age bracket. And it was their privilege to lie about in the recreation room, watching television, listening to their favorite electronic music, consuming burgers and shakes, as the parents scurried about doing the various activities assigned to them by their children. For Mom and Dad there was a wild selection of crafts, skills and athletic activities to which to devote themselves: leather work, beads, leaf identification, cooking, archery, boating, swimming, track, volley ball — dozens of others.

The singular duty of the children was to make final judgment upon their parents' degrees of accomplishment. And they were a critical jury. Though none participated in the various activities in order to know the problems of accomplishment, they nevertheless were capable of being severe in their judgments. A mother or father who fell short in a given enterprise was given a proportionate number of demerits by their children, resulting in additional work chores. In order to please, the parents return-

ed to their efforts with renewed determination.

When the launching of the missiles had been announced, the campers sped by automobile to the Adytum. The adults immediately organized themselves into efficient work groups, as the children gathered in the TV Room to watch the store of tapes reserved there by the Government.

It was there that the children made the decision. One had stretched indolently, watching the large screen, and said, "Who needs them?"

An hour later they found the closet containing the Survivo-Instruments. In a feeling of tenderness it was decided that none would have to attack his own parents, but rather those of another. Late that afternoon they descended upon the grownups. Surprise and shock rendered the victims powerless, and it was over quickly. Arthur Pomroy, the camp councillor and a glib, literate allusionist to the end — though an inaccurate one, considering the female children involved — was run through by one of the blades sprung from the butt of a Survivo-Instrument, and shouted, "Sanguinary Day, committed by the foul young priests of Adytum . . .!"

Later, as new arrivals came, the Young Priests allowed them

to enter an entrance-exit chamber, then destroyed them. Finally no more came. The Cremation Room was overworked for a time, but it had been reliably efficient.

The Young Priests had lost only two of their original young band of forty-two. Gabriel had stumbled into a crevice and broken his leg. He was left there until he died three days later, then they got him out and threw him into the Cremation Room. The other was Peter the Funny, so named because he was decidedly the peculiar one; he hated killing, though he did it; he sang strange, self-invented melodies; he sometimes failed to play the doit game because a girl he wanted more than another was with someone else; he was often mentally preoccupied. He wandered off by himself, the odd fellow, and probably broke a leg as the other one had, then died. But it didn't matter to the group, because he was odd and funny anyway. Nobody had worried about Peter since he'd gone.

Cheeks pink as the cherry milkshakes they consumed, they made their way along the rim of a volcanically created basin. A stream spilled over rock into a thundering falls, the fast-dropping water creating a sparkling sheet of icy fire against the bright sun. Thick vegetation protected the banks of the curling stream when they

had gone up beyond the falls. They leaped, sprawled, frolicked, unmindful of the fact that they were moving toward the opposite end of the Adytum.

It was only when they came over a rise to see the entrance to the extending leg of the main structure did they realize that they had come so far.

"Crap-land!" said Roger in disgust.

"Crap-land!" Debra said in total agreement.

They stared at the door to an entrance-exit chamber. Decision to abandon this northern section of the Adytum had been made arbitrarily one day by Billy, who had proclaimed dramatically, "That is *Crap-land*!" They had never come here since, until now. But now Billy said:

"Let's go in."

"Crap-land!" said Ellie, affronted.

"Was. Now it's *In-land*!"

They ran to the door and pressed the admitting button. Moments later they were running through the corridors, intoxicated by the rediscovery of that which they had once so rigidly rejected.

They careened through hallway after hallway, until finally they heard a strange sound. They stopped listening. The girls were ready to flee. But Howie whispered, "Can't afford an alien here!"

Survivo-Instruments were in forty hands. They stalked forward, pressed by the instinct to survive in the fashion they had shaped.

They stopped near a door behind which the sound originated. Roger crept closer, touched a button, then jumped back as the door slid open. Roger, Debra, Sonny, Sue, Billy, Howie — all — moved forward to stare in astonishment at Peter the Funny, sitting on a stool with his clarinet, looking back at them with wide, innocent eyes.

They encircled him. "Thought you were dead."

"No," said Peter, shrugging.

"Why'd you cut your hair?"

Peter was silent.

"You're skinny."

Peter remained silent.

"Where you been all this time?"

"Here."

"In *Crap-land*?"

"You're here," Peter said simply.

"It was *Crap-land*," Billy said defensively. "Now it's *In-land*."

"Okay," Peter said.

"Thought you were dead!" Sue shouted.

"I'm not."

"What have you been doing?"

Peter shrugged again.

"Why did you run off and hide!" Ellie said.

Peter held up the clarinet.

"What is it?"

"I don't know."

"Does it shoot? Kill?" Howie asked.

"Hell, no," Peter the Funny said. "It plays."

"Plays?" Roger asked, eyes searching the instrument.

"Let it play!" Sue said, voice edged with contempt.

Peter paused self-consciously, then fitted his lips around the mouthpiece. A small vein showed on his left temple as he blew. A clear, mellow tone of the expertly managed instrument poured forth; he trilled cadenzas in a dazzling display of triumph. He stopped. He held the clarinet in his hands.

"Crap!" Billy shouted finally.

"Crap!" Ellie yelled.

"Rabiddity-dow-bow!" another girl shrilled.

Peter shrugged a third time, no longer looking at them.

"Where's the button that makes it go!" Howie shouted.

"There isn't any!"

The room was silent except for their breathing as they stared at the clarinet.

Peter the Funny said softly, "There were old records. I listened to them. Then I tried to do it, like it sounded. Every day, all two years since I found it. There isn't any button. *I* do it!"

"Give it to me," Roger com-

manded, stepping closer, his round, pink face flushing.

Peter stared back at him, then finally handed him the instrument. Roger held it clumsily in pudgy hands. He examined the keys, the pads, the mouthpiece, the reed. Finally he put it to his lips and blew. The instrument growled, squeaked and complained. Roger handed it to Billy, who got the same results. Sonny tried, then gave it back to Peter, ordering grimly, "Make it play!"

Peter sat sullenly.

"Make it play!"

Peter lifted the instrument. A cadenza rolled effortlessly, as Peter's fingers flicked with precision.

A Survivor-Instrument cleaved the back of his head. Thirty-nine other hatchets flashed. When there was nothing left but pulp and fragmented bone, they broke the clarinet into a thousand bits and pieces.

As they ran for the entrance-exit chamber, Billy proclaimed absolutely, "Crap-land!"

— JAMES McKIMMEY

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THE PURPOSE OF LIFE

by HAYDEN HOWARD

Illustrated by GAUGHAN

*Whoever had brought the Esks to
Earth had returned for his crop!*

I

Deep within the assassin-proof vault, a traditional dragon symbolizing good fortune flaunted his gold-painted tail above the most important telescreen.

Across this surveillance screen moved *Chiu Hsing*, Saving Star, two-door sedans rolling off an assembly line in distant Shanghai. Click, televised from even further south, in Canton well fed students in traditional dacron robes sprang erect to face a blackboard of chemical formulae.

Click, televised erect as if disdainful of strategic dispersal, protruding here above the pink-walled courtyard of Peking's ancient Winter Palace, a gleaming nose-cone symbolizing —

"Show what's really important," Dr. West challenged. "We both know what feeds all this —"

Tapeworm, you press me too much pain, the thought flickered faintly within Dr. West's brain.

Beside Dr. West, the thin fingers on the control console remained obstinately motionless.

Dr. West could feel the other man's resistance like sparks within his own skull. Authoritatively, Dr. West withdrew his support. The opposing face sagged as paralysis again spread from its stroke-damaged brain. Dr. West returned his support, and the narrow eyes widened.

The two men were alone in the Command Vault beneath Peking, but they were not alone.

"Now!" Dr. West commanded aloud, and beside him the unparalyzed fingers moved more obediently across the numbered pushbuttons on the control console.

Click, on the surveillance screen, shimmering across a thousand miles, appeared the contorted mountains of Szechuan Province laboriously terraced. Up new tiers of glittering mountain rice paddies, swarming shapes with hoes clambered into graying rain.

Closer, Dr. West thought. Significantly for a closer view.

Beside him the man's fingers, which had been paralyzed, moved. Click-click across the thousand miles, and in Szechuan Province a telelens panned along the rain-gray mountain. Across tiny rice paddies, beaded along a precipice, swept the rain. Dissolving mudlips slipped. Whiskered rice paddies smaller than bathtubs

burst down the terraces. Scurrying Esks struggled to repair dissolving edges with dissolving mud.

The whole cliff's about to slide, Dr. West thought as the telelens zoomed at a random rain-drenched face. In this moment of peril, the surveillance screen was flooded by the Esk's infuriatingly senseless grin.

"Dammit, even now, that one's looking North!" Dr. West shouted, his body tightening in another of his uncontrollable surges of rage and frustration. "Every day. More and more Esks looking at the sky." His voice choked as his breathing squeezed agonizingly tight. His rage or fear was making his heart muscle wince.

Beside him at the console the thin hand contracted like a dying spider. Dr. West felt his own pain reflected from Mao III as they both gasped for breath. He blinked at Mao III's loud-gasping face, now waxen above the luxurious black dacron robe.

Instinctively, Dr. West's hand slid another tiny white pill under his own tongue. It was his heart, not Mao III's. The stinging sensation beneath his tongue helped him relax even before the .32 mg. nitroglycerine tablet dissolved, diffused, reopened the constricted arteries within the cramped muscle which was his heart. He relaxed, sheathed with sweat.

Beside him the partially paralyzed Mao III regained his breathing rhythm, emitting rhythmic hissing sounds in the Command Vault 4,000 feet beneath Peking.

On the telescreen the random Esk still stood grinning at the sky as if symbolizing a billion, two billion Esks spreading over the world, all smiling into space.

"There is nothing up there but sky," Dr. West muttered.

Unconscious of the surveillance lens, the Esk bent his rain-washed back once more, and his obedient hands scooped mud upon the dissolving rim of the rice terrace. Beside him worked a child, and another child, dozens of Esk children working rhythmically in the rain.

So much more quickly maturing than Chinese children, they appeared to be twelve-year-olds. Dr. West estimated this swarm of children had been born two years ago. In another year they would be reproducing babies of their own. The first Esks had needed 5 years to mature. Recent generations were maturing in 3 years. *Faster and faster!*

"You fool!" Dr. West shouted at Mao III. "You still insist they are human. But such inhumanly efficient mothers and embryos! A one month gestation period?" Dr. West shuddered. "Human?"

All over the once barren mountains and marginal deserts of China, the spreading Esk population under Chinese control was hand-working the sand, rock and thin soil. After Dr. West had paracapsuled down in Szechuan Province, he had witnessed Esks terracing mountains so steep a Chinese commune worker would starve.

Up there, Dr. West thought, even a man's hardest labor could not produce the equivalent of 1,800 calories of rice energy each day he needs to keep him working and alive.

Yet these smiling Esks were eating less than 600 calories of rice energy each day and working strongly. On submarginal land where Chinese commune workers would have starved, these Esks were producing a rice surplus.

"You fool!" Dr. West glared at Mao III. "Do you still think you are leaping fifty years of Marxist-Maoist agricultural frustration? Yes, you have a rice surplus this year. Yes, you are elbowing into world trade. With surplus rice, you are filling the bellies of Chinese industrial workers and troops all over Southeast Asia and spreading west. You are increasing the Esks to produce an even bigger agricultural surplus next year, but the Principle of Diminishing Returns is not an economist's myth. And the ghost breathing on your neck is Malthus."

That discredited 18th-Century English pessimist, Mao III's thoughts taunted, who did not foresee the scientific improvement of agriculture or the —

"How can you talk about scientific agriculture?" Dr. West shouted and recovered his breath. "Even assuming scientific agriculture in the sea, this planet has limits! The human population is only doubling every twenty-five years. We both know the Esk population is doubling every year in China."

Dr. West stared at Mao III's lopsidedly smiling face and added bitingly: "Are you master or tool? The first few Esks did not appear in the Arctic because Maoist theology wished them there."

At this, Mao III's thought-projection turned as blank as Arctic ice.

I*f there is a purpose in life, Dr. West thought and oddly visualized a spinning globe with a Geographic North Pole set in the white Arctic Ocean and, rotating closely around it, the bare rocks of Canada's Boothia Peninsula, present locus of the Earth's magnetic lines of force, of the North Magnetic Pole. There he had discovered the first few grinning Eskimos who were not —*

"What are they?" Dr. West croaked, his thoughts circling back in the old rut. *So nonviolent,*

so obedient, so happily increasing as if they can feel their purpose approaching. Always smiling, no matter what we do to them, as if they feel their purpose approaching. Closer every day. "What is their purpose? Their purpose can't be our purpose!"

He stared at Mao III.

No purpose, Mao III's thoughts derided Dr. West with startling humor for a paralytic, who was gasping for breath. No purpose anywhere. End purpose of Universe when I die equals nothing. No ten thousand years of Maoism. Nothing. So you cannot frighten me with too many Esks.

Mao III's throat corded with effort, and he managed to gasp aloud. "Nothing frightens me after what you did to me, my brain tapeworm. You —" His voice was cut off.

Dr. West's forehead wrinkled with effort, as Mao III's voice gurgled to silence. But Mao III's thoughts like javelins penetrated Dr. West.

My power is nothing. Squirm, my tapeworm. So shrewd, their plan to invade me with you. But your success is nothing. Mao III's face contorted like a smile. Squirm in this intestine of power, my tapeworm. You a new leader? I laugh. Since the beginning of time, the world has been impossible. What can you do?

Dr. West's thoughts and body

tightened defensively, and Mao III's face sagged. His transmitted thoughts were blurred by pain. Dr. West watched him gasping for breath. It would be catastrophic to let him die.

Cold with sweat, Dr. West squirmed on the console chair. *Instructions must have been given me, his thoughts revolved, in case I succeeded like this.*

He moaned with motionless effort turned inward. There was no coherent clue to his net line of action. His memory seemed torn apart.

He knew the electrointerrogation after his "capture" had contributed to his present disorganization. And this symbiotic relationship — Mao III was cursing it as parasitic — must be disorganizing both of them.

His dreams — until he began giving Mao III sleeping pills, Mao III's dreams had awakened him.

The pink walls enclosing the Great Square had echoed from marching troops which awakened Dr. West, who imagined it was his own dream. Then dim ranks of children wearing red bandanas around their throats had passed through Dr. West's mind even though he was awake. Endless ranks of children with red balloons, white balloons, and Dr. West felt a growing sensation of joy and pride. Mao III must

be watching them from his dream. "Mao Tse-Tung wan shui! Mao Tse-Tung wan shui!" their shrill voices shouted. "May Mao Tse-Tung live ten thousand years!"

In unison the balloons in the dream were released. But Mao Tse-tung had been dead for nearly fifty years. Mao III must have been an unknown young man then. Dr. West realized that Mao III was dreaming of his youth before the interregnum of committees and armies which followed the death of Mao Tse-Tung.

The following fatherly figure, Mao II, had been a desperation figurehead. But Mao III was here in the Command Vault, whether in command of China or subtly trapped by a coalition of generals, Dr. West still was unable to determine.

"Command into the telecomm," Dr. West blurted. "Speak to your interrogators on the surface who failed to protect you from me. Order them to prepare any Esk. I — you want to ask that Esk one question."

Mao III's breath hissed out, and Dr. West allowed the paralyzed hands to move across the console.

Without Dr. West's mental concentration, Mao III's stroke-paralyzed body was useless sinew, skin and bones. Now it moved as if Mao III still were in command.

Such a small decision, Mao III's thought derided. To question an Esk. For twenty years we have been peeling their brains like onions to find nothing. They are simply mutated Eskimos. Nothing more.

As Mao III's finger stabbed a pattern of buttons, Dr. West detected no discernible treachery in Mao III's thoughts. Colossal contempt merged from Mao III: *Tapeworm, you will learn that Esks contain no magical racial memory. What magical question can you ask? My technicians have questioned them electrically until I was ill from the smell of charring flesh.*

Such innocent people Esks cannot even begin to think of lies to confess.

There was a humming from the communications contact with the surface interrogation clinic, and Dr. West allowed Mao III's voice to speak. What emerged were Dr. West's orders.

The distant answer: "Within fifteen minutes an Esk will be positioned and ready for questions, *Chiu Hsing*." Click.

Dr. West's eyebrows rose. "*Chiu Hsing*, an honorific title meaning Saving Star? That also is the name of your mass-production automobile."

Dr. West laughed softly as Mao III peered questioningly at him.

With the dignity of a mandarin, Mao III nodded. "I gave happiness."

As he detected the derision in Dr. West's thoughts, Mao III scowled. "You are a monomaniac, convicted fifteen years ago of attempted Eskimo genocide," Mao III's voice rushed as if he expected Dr. West to shut him off. "You would not be here if I had not suffered my brain-stroke, false doctor. You have such little plans. To question an Esk until he dies. Listen, my tapeworm, the deepest words you will excavate from a stupid Esk are their incorrect Arctic myths, a confusion of bear worship and imperialist Bible fables."

Mao III smiled. "Maoist science has proved Esks are nothing but mutated Eskimos." His voice shrilled. "You fraud, perhaps you were in the Arctic when the Esks still were few. But it is I who saw the future for China, who ordered the rescue of a hundred Esks from Canadian starvation."

"And twenty years later you have a billion."

"They are as human as I am, and more human than you, you genocidal maniac." Mao III gasped for breath.

As Dr. West mentally strangled his speech, Mao III's thoughts

continued attacking. *Tapeworm, you are sitting in my Command Vault as if you imagine you control the greatest organized power on Earth. Yet your mind is so small, you are planning to waste time personally interrogating, yes, torturing one little Esk.*

Dr. West said nothing. Finally he nodded his head. "As you say, the questioning is a small step. A larger step will follow." Dr. West improvised, forcing his weary smile at Mao III. "You are going to reappear before the world."

That plan now elaborated so swiftly in Dr. West's mind he thought he accidentally must have cued some original hypno-instructions. "You are going to reappear before the telecamera to demonstrate that your rumored retirement, nice word, is false. You have recovered from the rumored stroke. You are going to ask for an international teleconference between you and —"

No name automatically was formed in Dr. West's voice. Dr. West blinked. Nothing flowed, no well ordered plan from his damaged memory. If the Harvard Circle had implanted further instructions in case he reached Mao III, they were erased. He was alone. Had he always been alone?

"The subject of the teleconference will be —" Dr. West waited. Nothing. He made his own decision based on his own beliefs of

thirty years. "You will propose a split-screen teleconference with the President of the United States. Before a world audience you will negotiate for international population control of the Esks."

Mao III laughed aloud with surprise. "Your monomania reappears in another new disguise. Impossible ideal. More impossible than weapons control."

Mao III's smile became malicious. "The United States could never agree to limitation of your Esk population. You look startled, my tapeworm. Either our electrointerrogation burned holes in your memory, or those murderous plotters in the C.I.A. neglected to correctly inform you what has happened in the United States during the last fifteen years."

Dr. West blinked in confusion.

"Don't you remember where you — slept during the last fifteen years?" Mao III persisted. "At least I have seen your dossier. Do I know more than you? The New China News Agency knows where you were. Fifteen years ago, in Canada you were convicted of genocide, as the whole outraged world remembers. You were coddled in the New Ottawa Reformation Center. For some reason, which I do not know, soon you were moved punitively to what

Canadians euphemistically refer to as The Cold Room. So you can't know what's truly happened. You've been asleep for fifteen years. Were you startled to awaken in the United States? You confessed to my own interrogators that you regained consciousness in a large basement room in a large building across the river from Washington."

Mao III laughed. "The imperialists finally had a use for you — you mass murderer. You were stolen from an indeterminant sentence, rescued because one of your former colleagues in population control research had a new job."

Dr. West blinked. A circle of faces had peered down at him. Familiar? He had been startled how old Fred looked. Beside him the embarrassed man with the hypo appeared so old. "Sammy!" It was Dr. Sam Wynoski, still a consultant in chemopsychiatry for government agencies. After "Therapeutic Adjustment" they had taken him upstairs to the Assistant Director, who was —

Dr. West tensed. "I know all that, I know all that, the Harvard Circle!" he shouted as if in guilt. "Shut up or I'll stop your breathing."

But I have said so little, Mao III's thoughts persisted. Now you have proper negative feelings because the C.I.A. used you as

mechanistically as a guided missile. Blind tapeworm, never were you told what is happening. I am going to show you what truly is happening in the United States.

His skeletal hand crept across the console toward the telescreen controls. *Tapeworm, the United States no longer is what they described to you. Those imperialistic warmongers never let you out of the Central Intelligence Agency building to see —*

With a frightened thought, Dr. West stopped Mao III's hand on the television controls.

The worst sin is ignorance, Mao III's thoughts slashed.

"Your attempt is — to confuse me," Dr. West gasped. "Trying to disorient me, so I'll lose my — need to take action, lose my desire to control you."

My motive is exactly that, Mao III thought calmly, but facts are true regardless of the motive of the one who brings them to your attention. Let your eyes see truth, see tele-broadcasts relayed from our satellites stationed above America and films made by enlightened tourists.

Dr. West's throat tightened. "I reject your attack. I don't want —" He closed his eyes. "Give orders through your foreign office," Dr. West shouted. "Now! Transmit to your so-called ambassador in Warsaw, to make an offer, an ultimatum for a teleconference

within one week with the President of the United States."

"What a beautiful flower," Mao III exhaled after Dr. West had released his voice "is each moment of life. Particularly beautiful is the last flower seen by a mountain climber whose grip is weakening on the precipice of life. I am that climber, and you are roped to me, tapeworm. My military could not approve of such a conference."

"I don't give a damn what your generals approve."

"But the art of government is quite complex. During the three years since my first brain-stroke, the generals have been watching each other while waiting for me to die." Mao III's face contorted. "Already there must be rumors of your presence in this hole, my faith-healer, but each general has hesitated to take action because this would arouse the suspicions of the others as to his real purpose."

Mao III smiled. "My pure-hearted generals! Each man dreams of the power to save the world. Each desires the empty thing which is down here in the Command Vault."

Dr. West said nothing.

"Is it power or the ghost of power?" Mao III laughed. "Now if I disappoint my generals and tell them that my health has been

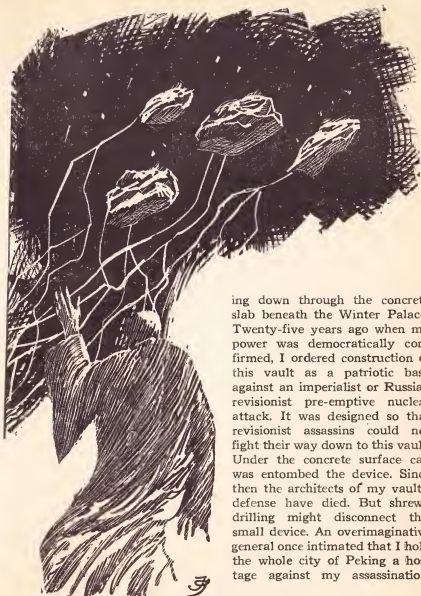
regained, that I plan to embark on a revisionist foreign policy without their guidance, that I intend to recognize and dignify the existence of the United States by engaging in a teleconference with that barbarian assassin whose capital is Hollywood, or Toledo or Washington, my generals will conclude I have gone mad or have been captured by a rumored non-Chinese faith-healer. My generals will be forced to unite and rescue me."

Dr. West glanced at the ceiling. Supposedly, it was 4,000 feet to the surface.

"This hole, this coffin is not inviolable," Mao III taunted. "Perhaps today someone is drill-



GALAXY



ing down through the concrete slab beneath the Winter Palace. Twenty-five years ago when my power was democratically confirmed, I ordered construction of this vault as a patriotic base against an imperialist or Russian revisionist pre-emptive nuclear attack. It was designed so that revisionist assassins could not fight their way down to this vault. Under the concrete surface cap was entombed the device. Since then the architects of my vault's defense have died. But shrewd drilling might disconnect this small device. An overimaginative general once intimated that I hold the whole city of Peking a hostage against my assassination.

But truly it is a very small device only intended to seal off entry to this vault. Not even the Inner City would be obliterated."

Where is the detonation control? Dr. West thought.

Mao III shrugged. "If the generals and my loyal surface guard and the civil police and my Party police all could agree to trust one another, it would be a simple matter to drill down a series of exploratory holes and eventually disconnect the device."

Dr. West found himself listening for the elevator.

"Careful technicians with small loss of life should be able to locate the alarms and gas jets in the long shaft even though all plans were burned twenty years ago when the architects were liquidated." Mao III laughed like a pleased young boy. "Then soldiers can be lowered on long cables. It would be fatal to use the elevator as long as I—" Mao III inadvertently visualized a switch on the control console. "Pull it and immobilize the elevator if you panic. But the soldiers will come down on ropes. They will push my servants aside because my servants are non-violent, even too innocent to poison me."

"Then all your servants down here are Esks," Dr. West said.

"The soldiers will push my servants aside and rescue me — from you."

"Then, welcome them," Dr. West retorted. "If this is what will happen, you should be happy to start the flow of events. Simply give orders to prepare for the teleconference. Now give the orders!"

Mao III sighed. "You still lack the subtle understanding necessary for a leader who desires to continue his long reign. Let me explain to you —"

Dr West's brow wrinkles deepened, and Mao III cried out as his terrible cranial pain echoed dizzily into Dr. West, who relaxed the pain. If he killed the old man he would be left with — nothing.

"— with nothing," Mao III gasped, "for either of us. The generals will come down to rescue something from you, my tape-worm. Not me, my power. For them, my living body will be an embarrassment like a mangy dog." He laughed bitterly. "But a dead leader can be used as a political martyr, you — C.I.A. assassin."

"Goddammit, give the orders for the teleconference!" Dr. West repeated.

Mao III bleated in pain, and Dr. West had to wait for the grayness to clear from Mao III's brain.

"Consider," Mao III whispered and a managed a twisted smile.

"What is the simplest way to rid an old dog of his tapeworm? It is to smash his skull and give him a glorious funeral through the Great Square of Peking. This is the way I would like to die; but consider, are either of us ready?"

Dr. West's rage whirled Mao III's thoughts into gray confusion.

Unexpectedly, Dr. West glimpsed Mao III's visualization of an inconspicuous keyhole, a locked panel in the console. Now Mao III imagined an earthquake rumbling from the surface as he twisted in pain, and Dr. West felt the childhood clutch of claustrophobia. Mao III really would turn the key, detonating the nuclear device, erupting the Winter Palace, sealing them 4,000 feet beneath Peking. Where was the key?

Dr. West knelt beside Mao III's contorted body on the floor and lifted the silver snakechain from his neck, drawing out of the black dacron robe the skin-tarnished key. *My control isn't as all-encompassing as I thought. I never detected the existence of the key, but perhaps you never thought of it until now — I hope.*

He hung the key around his own neck.

When Dr. West helped Mao III's limp body back onto the chair in front of the console, he could detect no more mental re-

sistance. Mao III's surprisingly determined resistance to a teleconference seemed at an end. His thin fingers depressed the proper buttons on the console. His sagging lips mouthed Dr. West's orders to the Chinese Foreign Office, and Dr. West warmed with excitement as he heard his orders being transmitted into action.

Although the Chinese Federation of Nations now held three seats in the United Nations General Assembly, and their dacron red-and-black robes no longer attracted tourist attention within the glass-walled U. N. sanctuary on Manhattan Island, all diplomatic contact with the United States was carried on within the Catholic Capitalism Principality of Warsaw. The U.S. Ambassador in Warsaw was invited to sit in secret session with his Chinese counterpart. Negotiations leading toward the international teleconfrontation had begun.

"Tapeworm, you are wastefully sacrificing your life and mine because your president will not agree to face me in a television debate."

"Wishful thinking on your part. Signal your interrogators on the surface. What happened to that Esk who was supposed to be readied for me to question?"

"Let me show you telecasts of

the situation of the Esks throughout the United States."

"No!" Dr. West shouted with unexplainable rage and pain. "Show me the Esk in the interrogation room."

A shuffling sound caused Dr. West to whirl. False alarm. An Esk servant had wandered into the Control Room carrying the afternoon tea tray. Dr. West ignored this Esk.

On the telescreen appeared the frightened face of a Chinese interrogation technician, confessing there had been minor technical difficulties in wiring the Esk's frontal lobes. There would be another short delay.

Dry-mouthed, Dr. West waited for his tea to cool, waited for Mao III to drink first, noisily.

"Tapeworm, I am alive because my Esks prepare my meals. Do you consider Esks inhuman because they not only eschew violence, they are too innocent to poison —"

"Why should they bother to poison you? They're poisoning the whole world with sheer numbers."

"You're hysterical and stupid. Your Esk strapped on the table up there will be as unable to explain the purpose or lack of purpose of the Esks as you or I would be if we were tortured to explain the purpose of Man on this Earth."

"Is your strategy," Dr. West retorted, "to argue against anything I try to do? By deriding me are you trying to erode my self-confidence? Are you trying to wear me down? I'm so much stronger than you, you won't escape that way!"

"Your president cannot agree to confront me in a teleconference if the agenda includes the international problem of population limitation of the Esks. He is a practical man, as practical as I am, and he will create an excuse, an incident to avoid facing me in a teleconference if the subject is to be population control of the Esks. Tapeworm, let-me show you the United States. I will show you why your president cannot agree to —"

"Shut up!" Dr. West turned away and closed his eyes. *The President would welcome another international teleconfrontation.* His thoughts had the sound of another man's voice.

III

Now he remembered George Bruning's calmly intelligent face. Dr. Bruning was not a medical doctor; he was the Assistant Director of the Central Intelligence Agency. ". . . my idea, but the President took it up," George Bruning had said. "A fresh innovation in international diplo-

macy." Dr. West blinked. George Bruning had been briefing him as to the 15 years he'd missed, conservatively an all-afternoon project.

Evidently George had managed to extend his own influence far beyond the Harvard Circle of the C.I.A. "Ages ago when Paul and I—the President and I were in the Hasty Pudding Club—that's at Harvard, I said *Paul you ought to enter politics. At nineteen you're already a greater actor than Lincoln.*" George Bruning had leaned toward Dr. West. "Both our international teleconfrontations made use of our U.S. Information Agency relay satellites blanketing the Earth—split-screen, each leader in his own country, almost face-to-face—instant audio translations from a hundred satellites covering the world. They saw it all. The BIG audience! And both times the President scored!"

"The first time, the President was a little nervous even thought we'd dug a pitfall for the Premier." George Bruning had smiled shyly.

"As for the Premier, he had a small country, and he wanted the world-wide advertising the broadcast offered; but before accepting he was extremely cautious. Maybe he'd read U.S. history, the Kennedy-Nixon debates, little pitfalls of television. The Premier

accepted only three of our suggested subjects for discussion: coffee prices, weather control and the international student exchange program.

"Harmless subjects," George Bruning added smoothly, "but at least the personalities of both men would be exposed to the world."

"To our horror the Premier projected great dignity, an upstanding man, which he was not. Our President—what a warm personality! As a former motion-picture actor, Paul really knows how to come across. But it would have been a stand-off." George Bruning frowned. "I crawled underneath the President's teleprompter, gave him the pics.

"My agency had—acquired the pics. Since students were the final subject for discussion, the international student exchange, the President needed our pics of certain students the Premier had selected for exchange from his small country.

"The Premier had assured their relatives that the student leaders merely had been exiled; because of the March he had benevolently sent them to China as part of the student exchange program. Already their relatives had been receiving enthusiastic, but typed postcards from China. They liked China so well they might never return, the postcards said."

"... until our President held up the pics to the T.V. camera, clearly revealing to the world the students and the wall and the easily recognizable building behind. The mob dug up the bodies of the students while the Premier was trying to escape from the other side of his Capitol Building. The new government is much more acceptable to the C.I.A."

"... after that, another teleconfrontation with another Head of State was difficult to arrange. Necessarily, its arrangement was more subtle. The President lost, as promised. Like billiards—pool, you know—like a hustler. We're looking ahead to the big one."

There was a buzzing sound, and Dr. West blinked. A yellow communications light was flashing on the control console.

"Do you still desire to attempt your useless interrogation of an Esk?" The voice beside him was Mao III's.

On the telescreen gleamed a white room with white-gowned figures bending over a surgical table. Dr. West winced at the similarity. It could have been the same room in which he had been interrogated. Now the viewpoint from the closed-circuit T.V. system shifted to a high lens looking down from the ceiling. Dr. West remembered staring up from the

table at the ceiling grille with a camera lens glinting behind it, while cold hands forced wired needles into his skull, consciousness faded.

On the table, the Esk's eyelids were creeping closed. His shaven head glittered, a pincushion with a tangle of wires leading to the electrosensitizer and the reaction dials. As the electric current increased, the Esk lolled his head from side to side. Wide-checked, with a massive lower jaw, barrel chest and short legs, physically this Esk resembled an Eskimo.

One of the white-capped figures twisted a knob, and the Esk's eyes snapped open. Dr. West recognized the humming sound and the distant voice questioning. In Chinese, the Esk mumbled his name, a Chinese name, and the name of the Esk seggrecommune where he labored.

A technician glanced up meaningfully at the camera lens.

Dr. West swallowed convulsively. How to begin?

Tapeworm, Chinese electrocranial accupuncture is at your service, Mao's thoughts derided him. You have only to think, and my mouth is happy to question this Esk, a hundred Esks; every conceivable question already has been asked.

Mao III's thoughts collapsed as Dr. West intruded strongly, and Mao III's mouth hesitantly form-

ed a word. Mao III's voice spoke in Modern Eskimo, a language he did not know. "*Ilaga*, my friend," Mao III spoke as Dr. West thought. "*Nanuktuakjung*, little bear, Grandfather Bear approaching —"

Dr. West's thoughts poured from Mao III's mouth while the Esk's eyes gradually closed. Dr. West stopped, distressed.

He fails to understand you, Mao III thought maliciously. He is culturally Chinese. Of course he can't understand Eskimo. He was born in China, and three years before that his grandfather was born in China, and three years before that his great-grandfather was born in China, and perhaps his great-great grandfather was one of the first hundred underprivileged Eskimos the Chinese Federation of Nations, at my orders, rescued from Canada some fifteen years ago.

Dr. West concentrated, squeezing aside Mao III's thoughts.

"Grandfather Bear is approaching," Mao III's mouth shouted. Dr. West's thoughts, this time in Chinese. "Great White Bear from the sky," Mao III's voice helplessly hissed through the microphone at the Esk, and Dr. West's memories of the original little group of Esks telling night stories of the bear in the sky poured from Mao III's mouth with increasing intensity. "He will come.

Grandfather Bear coming down from the sky. He hungers for us with joy. With joy, all will be one."

The Esk's eyes widened in ecstasy, his mouth opening. "Grandfather Bear, Grandfather Be —, Grandfather Dragon-Tiger!"

Dragon-tiger? Dr. West thought with disgusted surprise and glanced at Mao III.

Dragons, tigers, Chinese symbols of spiritual power have overlaid the fading Bear symbol. Mao III's smugness enclosed Dr. West. *My tapeworm, your Polar Bear symbol is nothing more than an animistic relic of prehistoric Eskimo beliefs polluted by capitalist Biblical underexposure. Nothing more. Did you think —*

"Grandfather Bear is coming down from the sky. Prepare this world," Dr. West's voice-thoughts surged from Mao III into the microphone, and the Esk lolled his head from side to side, and Dr. West paused, trying to remember the night igloo, and out under the Arctic stars.

No matter how deeply you interrogate this lump of flesh, no matter how ridiculously you try to trigger his racial memory, Mao III's thoughts taunted, he can tell you nothing new. How can he tell you secrets of a World Beyond when the only imprint

within him is from this humble world?

One of the white-capped technicians glanced up at the ceiling-camera, and gradually the electrosensitization of the Esk's cerebrum was being increased while Dr. West's thoughts spoke, through Mao III. Dr. West was reproducing the religious excitement of Edwardluk twenty years ago.

"Grandfather Bear approaching, closer and closer as we increase. He is coming! Our bodies are preparing the world for him. His great hunger is for us. Our bodies will reward him for our birth!"

The Esk's voice squealed.

Abruptly, the Esk's pulse rate jumped to 150 per minute as his smile opened in a shout. "Grandfather, I — we altogether in you." His face strained with joy and tears. It almost seemed as if his hair was standing on end in a static-electric effect as he relived the myth his father must have told him. "Grandfather, come down! We prepare world for you! For you we are ripening—"

The white gowns flurried about the Esk. On the table they were giving him oxygen resuscitation. Now external heart massage.

A lot of them die like that, Mao III thought. Wasted, I suppose due to an electrosensitization overload.

A white-robed technician glanced up at the camera as if in frightened apology.

Dr. West sat there sweating. He stared at Mao III. "After I rest we will question another Esk." Dr. West's voice rose with excitement. "I don't believe this Esk died from incompetent electrosensitization. If Esks could be made to die, triggered by mental suggestion, maybe something coming down from the sky? Did you ask astronomers? I, he died so happily as if—"

"He was electrocuted," Mao III taunted, and he released a hail of words upon Dr. West's weariness. "Tapeworm, Pavlovian cues such as the wave of a flag can cause a soldier to leap up into machine gun bullets. Other triggers such as the news of the death of a loved one can cause a man, already subject to arteriosclerosis, to fall down with a heart attack, and so a sudden gust of wind plucks an over-ripe fruit."

Mao III's voice rose. "Even if you triggered that Esk to die, this does not prove that your words or his belief had Marxist-Materialist reality, or even that other Esks can be psychophysically conditioned to ripeness for such nonsense. All Maoist Esks know there is nothing physical Out There In The Sky which desires to eat them. Marxist-Maoists

stand on scientific dialectical logic. In any case, that childishly suggestible Esk will be proved to have died of too much electricity, which is a physical force—"Mao III stammered, as Dr. West was able to shut off his physical voice.

But Mao III's thoughts swept on like an erosive river. *Tapeworm, we both should admit that Esks simply are mutated Eskimos, human beings like ourselves, merely more fecund and more obedient. Listen to me, my tapeworm, subconsciously you have been searching for excuses to murder Esks. You want proof they are not human so it will salve your conscience for the mass murder you consummated fifteen years ago. With imperialist-cultured bacteria you almost succeeded in Eskimo genocide. Was it 21 Eskimos died? Before the eyes of the world you were convicted of mass murder. Even in the most reactionary capitalist news media you are, shall we say, enshrined as a homicidal genocidal maniac!*

"No! You have twisted it!" Dr. West shouted. "My intent—" His voice trailed off, and he felt Mao III's stream of destructive thoughts backing him into a corner so that Mao III could escape.

Tapeworm, your insane attempt to seize my power. Paranoid, ad-

mit you are a god who will cure the chaos of the world. You are trembling. Little man, you can't even remember what you were instructed to do. The little imperialist schemers of the C.I.A. have concealed what has happened during the last fifteen years from you. Why else would they select you, who have been inert in a Canadian cold room for fifteen years, for this mission? Because you don't know!

Tapeworm, you are their last weapon for mass murder and not only of Esks! Mao III closed his eyes. You have forgotten your orders because they are so horrible you cannot allow yourself. Once you were a good man. There still is humanity in us both. At least, we are both of the human race. Yes, we are on the same side with all of enlightened humanity. We are both human. You can rise and walk from this vault into freedom. No one will harm you. You are freed of all murder. In China there is no murder, and I declare you free of all guilt. You are cleansed of blood stains of C.I.A. control. Good-by, my friend, you are free to walk to the elevator and rise into the sunshine.

"You sly so and so!" Dr. West rose, his muscles tightening, his head aching with concentration, toppling Mao III to the floor, where he lay jerking in agony.

"Don't try to attack me again." Dr. West swayed in the echoes of Mao III's smothering agony as he writhed on the floor.

"When I am ready," Dr. West gasped, "you—I will examine other Esks until we..."

Murderer! Even from the floor Mao III thrust his javelin thoughts. You hope you find evidence of nonhuman origin and that it will excuse your crimes. Maniac! You think you warn the world and now people listen? Fifteen years ago your lies that Esks are not human were disproved. Mutants ARE human! You murderer. You biased expert, the joke is on you. I know more of the origin of the Esks than you.

IV

In his memory, Dr. West saw the bare rock ledges where the Boothia Peninsula thrust against the frozen sea. Shivering, he'd paced the distance across the Burned Place. He had taken 16 strides across the shallow blackened scar on the rock. "If it was an airplane, or space garbage, it crashed straight in." He had searched for wreckage.

"Where is the metal?" he had asked Peterluk. "The iron. Did you *Innu*it take away the iron?"

"Eh?" Peterluk's weathered face had creased in a cautious smile. "Only two of us then. This

person—" the Eskimo had touched his own chest, "—and this person's useless old woman."

Dr. West already had seen Eevvaalik. "So the crash was several years ago, before these younger Eskimos came here, if just you and Eevvaalik were here. What did you do with all that metal?"

Peterluk opened his filthy, frost-scarred hands. He seemed embarrassed because he did not want to contradict the white man. "Eh? No iron."

"Then what fell, what made this Burned Place?" Dr. West could not even see any evidence of a stony meteorite.

Silence.

Peterluk stared out at the frozen sea as if hoping to locate a seal. "Eh! *Ugruk* out there!" He was trying to change the subject.

"Something fell from the sky," Dr. West persisted. "Eevvaalik said you saw a star fall from the sky."

Peterluk's bushy head turned. His thick knuckles tightened on the stock of his Russian military rifle. Any rifle was illegal in this Eskimo Cultural Sanctuary. "My woman's teeth worn down. Too long ago. She don't remember nothing the way it was." He slapped his chest. "This person don't see nothing because asleep. Nothing fell."

"She said you saw it fall from the sky. She said you left her and

travelled to find out what fell. What made this Burned Place?"

Scowling, Peterluk stared down at his *mukluks*. "Bad candles. Many in wooden box."

"No. I know this Burned Place wasn't made by sticks of dynamite."

"*Kabloonas* with iron hats," Peterluk muttered. "Many fine presents."

"No. This Burned Place could not have been made by the radar construction workers. Don't lie."

"Egg of God fell here." Peterluk shrugged and pointed his stubby nose at the sea. "Another time, ship poke up through ice like *narwhal*. But you no believe that either."

Peterluk retracted his arm within his voluminous sleeve. Inside his mangy parka he irritably scratched his bare armpit while he squinted toward a younger man approaching them. "Lice never bite him."

Peterluk was glaring toward the smiling young man approaching, "Not good hunter!" Peterluk commented as if destructive words could erase him.

In appearance, Edwardluk could have been Peterluk's own son. Closer, his face seemed smooth as a baby's as if he had spent few years outdoors.

Edwardluk had such a pleasing smile that Dr. West instinctively felt safer with him than with

Peterluk. This was a correct judgment, even though in those days Dr. West had not yet distinguished between Eskimo and Esk.

It was to take Dr. West a month to understand that Peterluk and his woman were the only two Eskimos in the camp of nearly a hundred.

Yes, Esks, you had to count the days of a pregnancy before you even realized they were different, Mao II's thoughts taunted, and you arrived twenty years too late to understand the Burned Place. Mao III laughed from the floor where he lay like a sack. "It is amusing that even now, after another twenty years, you still don't understand what you saw. It is not that Maoism has so many more well trained believers throughout the world than the C.I.A. It is simply that Chinese travelers collect even the most useless data, rumors, photographs. Everything is noted, filed and cross-filed. And we have more highly placed spies in Russia, collecting observations. From infinite unrelated data, the computer arranges valid and reliable patterns."

Dr. West permitted — mentally helped — Mao III to rise to his chair in front of the console. Mao III was leading him on for some reason.

"It is odd," Mao III laughed, "that I am the only head of state who has taken the trouble to learn how to question an Information Retrieval Computer directly. Surely direct access to infinite global data, multireferenced and computer-rated for reliability, should be more useful to a head of state than the filtered information which is sprinkled on the head of your president by his cabinet officers and presidential staff and C.I.A. advisers and Joint Chiefs of Staff, none of whom agree."

Mao III's fingers riffled over the index buttons. A still photograph of a rock ledge appeared on the telescreen. Separately projected across the top of the photograph was a date and some symbols. Separately projected beside it appeared a row of index numbers presumably guides to related data. "Do you recognize this photograph?"

"I assume it is the Burned Place but—" Dr. West stared uncertainly. "There is rarely that much snow. The High Arctic is dry. The wind sweeps..."

"It is not the Burned Place. It simply happens to be the nearest photograph to what was the location of the North Magnetic Pole 50 years ago." Mao III's fingers signalled the projected index numbers to the console. "The skill is in selecting the most pertinent

general number—subjects. Eskimos. Scientific searches. Perhaps meteorites. Aircraft crashes. Satellites which have fallen. I repeat the location designation: North Magnetic Pole, Boothia Peninsula, not too specific. In the computer, an immense pattern of related information has materialized. A leader's whole life would be wasted reading it. To place an electronic pin-point in this vast matrix, I introduce the phonetic number-name Peterluk."

Mao III's fingers moved, and the photograph of a cautiously smiling young Eskimo holding out a white fox fur, appeared, new index numbers materializing above his head.

Dr. West blinked. "That doesn't look like—It must have been taken when he was a young man. What's that behind him?"

Mao III depressed one finger, and a photograph of what evidently was an official report appeared, printed in Russian characters.

"For translations from the language of imbeciles," Mao III said, "the vocoder is slowest, but will allow us to study the photographs. This inefficient vocoder should stammer a synopsis of those items which are pertinent to Peterluk and to my question pattern, which still is too diffuse."

His finger moved, and the

mechanical voice of the vocoder howled: "CANADIAN ESKIMO SELF-DESIGNATED PETER-LUK. CANADA. NORTHWEST TERRITORIES. BOOTHIA PENINSULA. ESKIMO CULTURAL SANCTUARY EXTENDING NORTH FROM..."

Mao III's finger pressed: "Spare us these bureaucratic details." A blur of documents and index numbers swept across the screen. "Unfortunately, this computer is not capable of a direct answer to your amorphous question as to what caused the Eks. This Information Retrieval System simply flickers through molecular patterns of data, abstracting. My prod here and poke there narrows its tentative synopsis until the edge of a pattern small enough for a human mind to grasp is offered to me to guide."

A still photograph of a primitive nuclear submarine appeared on the screen. The vocoder howled: "POLAR RESEARCH SUBMARINE KOLOGRIVOV. REVISED MISSION. UNDETECTED INVESTIGATION OF TERMINUS METEORIC OR MAN MADE ATMOSPHERIC STREAK."

Mao III pressed the button corresponding to the first index number, and a jerky movie film appeared on the screen. Bundled men were clambering from the deck of the submarine into a rub-

ber boat. Another Russian-made film clip, evidently photographed from the conning tower by the same hand-held camera, showed the rubber boat bunting among the ice cakes. The distant men scrambled on to the rocks and upward.

Dr. West finally recognized the promontory. "The Burned Place."

"U.S. HAD NOT SENT AIRCRAFT TO INVESTIGATE PSEUDOMETEORIC-TYPE FLASH. THEREFORE RUSSIANS IN STATE OF READINESS FOR U. S. MILITARY TRAP ON CANADIAN SOIL," the vocoder howled, and Mao III nodded. "This is as close as the computer approaches reasoning as it abstracts the pertinent essentials from a hundred documents and offers us its synopsis with the best internal reliability."

Film from a hand-held camera was showing bundled Russians walking gingerly among large broken objects and nervously glancing at the sky as if expecting the contrails of U.S.A.F. ramjets.

Rising from his chair, Dr. West shouted: "Close up! Is there film showing a close-up of what in hell those things are?"

As if anticipating Mao III's finger, the computer projected a close-up of a Russian hammering with his rifle butt at a huge, dark

curve. It looked like ceramic clay. The rifle butt failed to chip it. The camera shifted to another broken curve. *The two might fit together.* Dr. West thought. The outside of each curve was roughened, darkened as if charred. The inside of the curves gleamed white. A broken edge was thicker than a Russian's hand width. *Like a gigantic mollusk's shell,* Dr. West thought as a Russian walked upright under the jagged upper end of the curve and turned and grinned bashfully at the cameraman.

"RUSSIANS UNABLE TO IDENTIFY BROKEN OBJECTS," the vocoder howled. "PLANNED TO REMOVE FOR FURTHER TESTS."

"Good," said Mao III's voice, "the computer has narrowed the available data and is attempting chronological order."

The Russian film-maker must have whirled with his camera. On the screen there was a glimpse of Russians scattering, a rifle was raised, and then the camera steadied at a stocky figure clambering down over the ledges.

A closer view showed the young Eskimo holding out a white fox fur and grinning expectantly as if he imagined all whitemen who illegally entered the Eskimo Cultural Sanctuary came to trade. Dr. West blinked. "I'll be damned. It is Peterluk as

a young man. Look at him grinning at that Russian's rifle. He wants it so bad he can taste it!"

"ESKIMO ADMITTED OBSERVATION OF METEOR FLASH," the vocoder howled. "UNABLE TO ESTIMATE DATE. CLAIMED HE TOOK NOTHING FROM BURNED SITE. AFTER REPEATED QUESTIONING ADMITTED HE HAD BROKEN A SMALLER SHELL."

The film showed a Russian lifting a white curve perhaps only an inch thick and large enough to shade the Russian's head and shoulders like a huge eggshell.

"FROM ITS POSITION IN WRECKAGE, RUSSIANS CONCLUDED SMALLER SHELL WAS INNER SHELL. QUESTIONED ESKIMO AS TO SHELL'S CONTENTS. ESKIMO DENIED HAD BROKEN INNER SHELL."

The film showed a Russian carrying a curve of the inner shell toward the water.

A long shot showed four Russians dragging a fragment of the larger outer shell into the rubber boat. "ELEVEN TRIPS TO FERRY ALL SHELLS TO SUBMARINE. WHILE QUESTIONED, ESKIMO DENIED PREVIOUS OBSERVATION OF METEOR FLASH. ON FURTHER QUESTIONING, ESKIMO ESTIMATED DATE

OF METEOR FLASH AS ONE MOON BEFORE BIRTH. ON FURTHER QUESTIONING, DENIED ANY OTHER ESKIMOS ON BOOTHIA PENINSULA. WHEN QUESTIONED IF HAD OBSERVED U.S. AIRCRAFT, ESKIMO STATED HAD NEVER SEEN AN AIRCRAFT. WHEN FORCE APPLIED TO ESKIMO, ADMITTED FLOCKS OF AIRCRAFT DARKENED SKY EACH DAY. CAPTAIN CONCLUDED SAFER TO CONTINUE QUESTIONING ON SUBMARINE THAN TO DISPOSE OF UNRELIABLE ESKIMO WHILE ON CANADIAN TERRITORY."

The film showed two towering Russians smiling, their friendly arms draped over Peterluk's shoulders. Between them the Eskimo stood like a worried dwarf, his white fox fur hanging limply from one hand.

"INVITED ESKIMO TO VISIT SUBMARINE," the vocoder howled its chronological synopsis from what must have been Russian naval reports. "ESKIMO STATED HAPPY TO VISIT INSIDE OF WHALE. SUGGESTED BEFORE GOING MUST CLIMB LEDGE TO GET OUTER PARKA. RESTRAINED BY A RUSSIAN. ESKIMO STATED MUST TELL WIFE AND NEW BABY

— DESCRIBED AS QUICK BABY SINCE LAST MOON. TWO RUSSIANS RESTRAIN ESKIMO."

The screen went blank. Evidently the cameraman knew what not to film.

"SEARCH FOR REPORTED WOMAN AND CHILD INTERRUPTED," the vocoder howled. "HIGH CONTRAIL OF AIRCRAFT OBSERVED. SUBMARINE SUBMERGED. SHORE PARTY SCATTERED. ESKIMO VANISHED. LEAVING FOX FUR. HURRIED SEARCH FOR ESKIMO UNSUCCESSFUL. SHORE PARTY EVACUATED TO SUBMARINE. ALL TRACES OF LANDING ELIMINATED. ONE RIFLE UNACCOUNTED FOR."

"Replay that part about the quick baby," Dr. West exclaimed. "Signal for more information about that —"

"— IDDEN BY RUSSIANS. DETAILED QUOTE: THE TREACHEROUS ESKIMO INFORMED CAPTAIN GOGOL AND MYSELF THAT HE WOULD BE VERY PLEASED TO ACCOMPANY US INTO WHAT HE APPEARED TO ASSUME WAS A SPECIES OF WHALE. BUT FIRST HE MUST BID FAREWELL TO HIS WIFE AND NEW BABY.

WHEN I REMINDED HIM THAT HE PREVIOUSLY HAD INFORMED US THAT HE WAS THE ONLY ESKIMO ON THE BOOTHIA PENINSULA, HE STATED THAT THIS WAS A QUICK BABY CONCEIVED LESS THAN A MOON AGO. NATURALLY OUR DILIGENT SEARCH PRODUCED NEITHER THE NONEXISTENT MOTHER NOR THE NONEXISTENT CHILD."

Mao III was pressing index numbers which had been projected during this quotation from the naval report, and the vocoder howled inane statistics about the Boothia Peninsula and the periods of the Moon. Mao III shrugged. "Evidently there is no additional information filed in the category: Quick Babies, Boothia Peninsula."

A still photograph showed men in white coats standing proudly in front of a darkly oval patchwork reconstruction. Seen as a whole, the outer shell had less resemblance to a huge mollusk's shell. Darkly charred, it loomed ominously behind the white-coated men.

"LOCATION MURMANSK. MINUS FIFTY YEARS," the vocoder howled. RECONSTRUCTION IN MAXIMUM SECURITY SITUATION. CHEMICAL ANALYSIS BY POLITICALLY RELIABLE.

THEORIZE LIQUID SHOCK-ABSORBING LAYER BETWEEN HEAT-DARKENED OUTER SHELL AND WHITE INNER SHELL. DUE TO LEVEL OF INTERNATIONAL COOPERATION IN ASTRONOMY IN 1960's, INNER POLITBURO MADE DECISION TO WITHHOLD ALL INFORMATION FROM RUSSIAN ASTRONOMERS. POLITBURO DEBATE SIGNIFICANCE OF NO U.S. EXPEDITION TO CRASH SITE. PENDING POLITICAL CLARIFICATION, OBJECT CLASSIFIED TOP-SECRET. FOR MAXIMUM SECURITY FURTHER SCIENTIFIC RESEARCH TO BE CANCELLED. ALL FILMS BURNED."

"Impossible to keep a secret in Russia," Mao III's voice laughed, "especially fifty years ago when that object fell, when Maoism was the wave of the future, and friends of China, old Stalinists, still were concealed everywhere. As you saw, even the motion picture films, which the Inner Politburo of revolving revisionists ordered burned, evidently were copied by surviving Stalinist-Maoists. With so much corruption in Russia, I suspect your C.I.A. also possesses ancient copies. But those who sent you here would not confide in you, my tapeworm."

On the screen, microphotographs showed the molecular structure of the inner shell. "CARBON - OXYGEN - CALCIUM," the vocoder condensed a long scientific report. "MICROSCOPIC SMEAR LIFE SUBSTANCE INNER SHELL. POSSIBLE HEAT-DEGRADED PROTEINS. D.N.A. UNIDENTIFIABLE DISARRANGED BUT POSSIBLY HUMAN OR ANTHROPOID PATTERN. NO EVIDENCE OF CAUSE-DISAPPEARANCE OF THEORETICAL LIFE-FORM IN SHELL."

"I am more free than my computer to theorize," Mao III laughed. "That barbarian Eskimo, when he poked whatever was mashed within that inner shell, he sucked his finger; then hungrily smiling, he would eat it without a bellyache. I hope it was only the remains of an American monkey or chimpanzee."

"INNER POLITBURO DECISION BY VOTE OF 4 TO 1," the vocoder howled, "ORIGIN OF UNKNOWN OBJECT WAS U.S. AGREED TO BE UNANIMOUS DECISION. DEBATE IF OBJECT WAS PROVOCATIVE U.S. STRATEGIC HOAX, VOTE 3 TO 2. POLITICAL RESULT UNPREDICTABLE, VOTE 5 TO 0. PROVOCATEUR SHELL TO BE DESTROYED AT ONCE AND NO FURTHER COGNIZANCE."

"Even so, a beautiful hoax," Mao III laughed. "For once you American bunglers nearly were able to keep a secret from the Russians — and even from us. In the years since then, our friends of China at Cape Kennedy and at Vandenburg never were able to collect reliable information as to just how the hoax was secretly constructed, launched and deliberately crashed. In fact, we never have found the evidence of U.S. origin. Do not look so discontented because the C.I.A. did not inform you. After all, this C.I.A. hoax was perpetuated 50 years ago, in the 1960's."

Mao III's voice was smooth as poisoned honey. "Even now, you would not be informed of its secret, historical malfunction because you were to be parachuted in China where the C.I.A. still thinks we are retarded angry children who know nothing. But I assure you that such a hoax never could have been consummated, even in those days, upon alert Maoist scientists."

Dr. West said nothing.

"You are wishful thinking it was not a hoax," Mao III taunted, "because your life, your beliefs tremble on a pinpoint hope that something which fell upon the Boothia Peninsula will confirm your monomaniac insistence that Esks are not human. Murderer, you would lunge any-

where for evidence of nonhuman origin to justify your hatred of the Esks. You would embrace any obvious U. S. hoax. Always you would clutch false evidence that Esk origin is from the sky because that is what you need to believe, that Esks are nonhuman. Otherwise you would be forced to see yourself as the rest of the world sees you, you convicted mass murderer. See yourself as you are, monomaniac murderer, leave me, tapeworm. Go! Leave this vault."

Dr. West gasped. "You can't wear me down with talk. You can't drive me insane. I won't have a heart attack because of you. If your spies in America could find no evidence of construction and launch in America of a nonmetallic object of large size, I know damn well it wasn't built in America. It was no hoax built on this Earth. And I'll tell you this. The crash wasn't investigated by an American search party because sophisticated radar would have told the Air Force it was not a metallic object. It would have echoed radar pulses as if made of stone. Maybe the Russian radar of that period was not able to discriminate, and they thought a satellite had fallen. They sent the sub. Undoubtedly U. S. forces had crossed it off as only a stony meteorite."

"Tapeworm, don't you won-

der why the fall-streak of such a large meteorite did not attract an American scientific expedition?"

"I — that was fifty years ago, in the 1960's. I." Even in his heart-pounding anger Dr. West realized from Mao III's quick thoughts that the orange flashing light on the telescreen indicated a high priority telesatellite transmission.

V

On the telescreen appeared a symbolic dove of peace, then a film clip of a peaceful wheat field dimpling in the breeze, and a peaceful baby smiling in living color, its arms outstretched to the world, then the American flag gently waving, while the audio played: "Oh, beautiful, for spacious skies . . ." All this was an introductory film clip, a station break via hundreds of U.S. Information Agency satellites sprinkled throughout the heavens. Shielded from the jamming of rival foreign teleinformation services, the U.S. telesatellites were relaying on all 82 channels down to every square foot of the Earth.

Magnificent redwood trees appeared against the sky and dissolved into a friendly-faced man standing with his hand resting on the shoulder of a smiling boy, a

boy who was deeply tanned and slightly oriental around the eyes so that he could be recognized as almost any nationality.

Smiling into the teleprompter, the friendly man was speaking; and the telesatellites over China relayed a peaceful-voiced Chinese translation: "Friends, I bring you greetings from your friend, the President of the United States. I am his good friend. My job is Secretary of State. I want to be your friend. The President and all my friends throughout the World call me Dino. My friends, don't go away from your television set. Please call in your children to listen. This important announcement also concerns them. The President of the United States has asked me to tell you how happy he is that the Chairman of the Chinese Federation of Nations has suggested a friendly teleconference."

The Secretary of State smiled through his transparent teleprompter and took a deep breath. "The President of the United States asked me to tell you he feels honored that the Chairman of the Chinese Federation of Nations has invited him to a split-screen teleconference. Don't go away from your television sets. This historic meeting, which promises greater happiness for all peoples throughout

the world, will be broadcast at this very some time tomorrow. You, your children, all ages will want to witness this historic meeting. Be sure to tune in."

Jagged static squealed off the sound and momentarily distorted the smiling face of the Secretary of State as he was dissolved into majestic redwood trees. The American flag billowed in the sunset as Mao III switched off the broadcast, and the picture contracted to a little bright spot which vanished.

"Tomorrow." Dr. West felt hollow and unprepared; there had been no mention of the agenda. Were the subjects for discussion still being negotiated in Warsaw?

"Now the military will be forced to face the fact that I am — insane. Insane to have suggested such a meeting," Mao III blurted. "The military will disconnect my external broadcast antenna. It is undefended on top of the Winter Palace. They will not be sufficient fools to let me match myself against your robust President. Perhaps one of my understudies — No, the generals are too cautious even for that. They will deny there was an agreement for a teleconference. China's prestige must be preserved. They will denounce your Secretary of State as a hoaxer. Then they will come down the

elevator shaft and — rescue me — kill us both!"

Dr. West glanced at the guard lights on the console. Evidently the elevator shaft still was safely locked at the surface. If the console could be believed, the protective devices still were cocked.

"It is a U.S. hoax!" Mao III blustered. "Your Secretary of State was afraid to mention that population limitation would be on the agenda. It won't be. Your government already has gained a propaganda advantage. Now the C.I.A. will create an incident. Perhaps an American ship will sink, and this will be blamed on one of our submarines on station off your coast. Your government will use the television time tomorrow for a taped denunciation. Your President will not face me. How can he, when the agenda we sent to Warsaw requires a discussion of the International Esk Problem. Your government fears I am going to suggest bilateral population limitation and quotas and international inspections of our respective populations of Esks."

Mao III ended triumphantly: "Any suggestion that the increasing number of American Esks should be limited would cause a political uproar in the United States. Any suggestion

that their number should be reduced would cause revolution!"

"You're unfamiliar with the United States way of life," Dr. West replied.

"No. You are. Admit that you haven't seen the United States for fifteen years."

"I know more about it than you." Dr. West visualized the basement rooms of C.I.A. headquarters and then the dark airport, the wave-ridges of California mountains, the spreading away of the coastline as the ramjet streaked out over the Pacific Ocean to "dump" him on China.

"Since you were awakened, you have seen more of China than the U.S." Mao III retorted. "You have seen the necessity of the Esks in expanding Chinese agriculture. How else can we support expanding consumer production and expanding defensive military. At this moment my generals must be plotting to attack me. Now they think I will agree to limit the number of Chinese Esks."

"But China has at least a billion Esks now." Dr. West retorted. "A population growth rate like that can't continue."

"China is a large country with much barren land which can yield surplus only when farmed by very low intake units."

"But next year there will be two billion Esks," Dr. West

shouted in frustration. "You have only so many mountains for them to terrace. Then diminishing returns and Malthus. If the Esks keep increasing in the mountains, if the Chinese keep multiplying in the cities, starvation will overtake..."

"For a scientifically minded Maoist economy there cannot be too many Chinese," Mao III retorted. "There cannot even be too many Esks while there is so much empty space in the world. When I conceived the masterstroke of rescuing those first hundred underprivileged Esks from the starvation in Canada, I foresaw all possible developments and have made all necessary preparations."

"You were insanely stupid even then, fifteen years ago."

"Yes, I am so stupid, I suspected that the United States would react," Mao III laughed, "and breed its own Esks. Esks have agreeable uses when spread throughout the American population, but not in China! Except for a few special needs such as my own Esks servants, I have kept our Esks in their own separate communes segregated from the Chinese population. This is a preventive for a phenomenon. Yes, I foresaw the eventual anarchic collapse in Canada."

"Dammit, let me see the United States!"

"Canada is a more advanced

example of my foresight." Mao III's hand moved on the console. "These are the only film clips of Canada so you need not believe them."

No! Dr. West thought forcibly. *First show me the United States.*

And Mao III's skeletal fingers obeyed.

Across the screen jiggled an electric fuel-cell powered bus as if filmed by a tourist. The neon advertising below its window blinked: FINE FUNERALS FOR HUMANS OR ESKS; then ASTROBOY CONVENIENT MINIMUM EXCRETABLE BREAD. The bus turned toward the camera. Its destination tape read: WILSHIRE TO WESTWOOD. The film with an amateurish zoom enlarged the bus driver's calmly smiling face.

"You see," Mao III said triumphantly, "the bus driver is an American Esk."

"FILMED MINUS SIX MONTHS," the vocoder of the information Retrieval Computer howled, "BY STUDENT-VISITOR LOS ANGELES."

Mao III's finger shifted on the console, and Dr. West stared at a film of a huge white truck entering a suburban driveway of a high-rise apartment. As it stopped, a great white scoop-jaw above the cab of the truck reached forward and downward like a

dragonfly larva's jaw. From the cab of the truck, a hurrying man in white emerged, seized a garbage can and emptied it into the jaw. The camera zoomed at the man's happily smiling face, an Esk.

Click, on the screen appeared towering condominium apartments beside the East River near the ancient United Nations building, and this more expertly handled camera explored past the Esk doorman into the ground floor lobby of the apartment building where a short-legged, but attractively uniformed and smiling maid was walking toward the escalator.

"Another Esk." Mao III restlessly pressed a button, and an unsteady film showed a large, concrete-block house. "SIOUX FALLS," the vocoder howled as the lens-view zoomed into the screened window. An American Negro family were sitting down to supper, and a neatly uniformed Esk maid appeared from the kitchen carrying a steaming platter of franks and sauerkraut. "An Esk." Mao III chortled. "I am so familiar with imperialist oppressor history. What a satisfactory capitalistic solution! Esks are happy to be at the bottom of the American peck order."

Click, a dozen small Esk boys were shown industriously polishing an autocopter, while an

American boy and girl played on a revolve-swing and their father lay on a lawn dais officiously gesticulating to an obedient Esk who was laden with a lawn rake, a fertilo injector and a dandelion extractor.

Click, along a college dormitory hall a svelte-hipped Esk maid balanced a tray of martini-shaped glasses through a Stanford-bannered door chalked **FRESHMAN STUD-Y RUM**, and she didn't come out.

Click, the sign on a huge new windowless warehouse read: **ESK RESCUE MISSION #9! Chicago Aid-to-the-Esks Society.** And underneath, *Healthy Canadian Imports. Also Fresh Raised Local Stock.* At the bottom a pricelist was taped to the door: **AIR EXPORT TO SOUTH AMERICA AND EUROPE. Wholesale Prices on Request.**

"Damn!" Dr. West was sweating and laughing and shivering at the same time, horrified. "God! In a few years when there's no more countries to which this surplus can be exported —"

"You are supposed to be the birth-control expert," Mao III replied maliciously. "A scientific humane solution such as forcible birth-control injections should be simple, if capitalist and revisionist oppressors are able to cooperate and behave rationally. But there is an unknown factor. Even

rational Maoist scientists cannot explain it. In the first country to have a preponderantly Esk population, which was Canada . . ."

Click, across the screen moved an impenetrable barbed-wire fence stretching along the Saskatchewan prairie. Filmed from the U.S. side of the border, the fence bulged with dark clots, bodies in the barbed wire, on the Canadian side. Further behind the International Boundary, indistinguishable masses of Esks (?) stood waiting.

"MINUS FOUR DAYS," the vocoder howled. "U.S. TROOPS IN FOREGROUND REPORTEDLY GUARDING FENCE AGAINST RENEWED CUTTING ACTIVITY. BEARDED HUMAN PRISONER REPORTEDLY MEMBER NEW YORK SAVE-THE-ESKIMOS LEAGUE."

A close-up through the boundary fence showed skeletons, humans or Esks? Starvation or?

"I can't stand to look at this. Let me look at Ottawa," Dr. West blurted, "where I was imprisoned."

Click, instead of the angry mob of Canadians who had reviled him fifteen years ago, the streets of Ottawa now were stagnant with starving Esks, even wandering in the middle of the street. Photographed from a copter, the

first film clip failed to show a single moving vehicle on the streets of downtown Ottawa. "MINUS SIX MONTHS," the vocoder howled. NOW REPORTEDLY CITY POPULATION REDUCED. LACK OF TRANSPORT AND FOOD."

"But what happened to the Canadians?" Dr. West bleated.

Tall white towers like grain elevators appeared against the skyline of the city. "That's it, the New Ottawa Reformation Center," Dr. West said, remembering his loneliness for Nona. *What's happened to her?* Are there close-ups of any guards on file?"

Click, Esks were wandering in and out as if the towers had become giant dormitories. "What happened to the real people? I knew some of the guards, when I was a prisoner —"

Click, Mao III's hands moved at the console, and the computer howled: "INSUFFICIENT DATA REGARDING PRISON STAFF. FOR DATA RE: PRISONER DR. JOSEPH WEST REFER TO —" Mao III switched to the next item. "FOR DATA PRISONER PETERLUK ES-KIMO BOOTHIA REFERENCE 85234." Mao III's fingers moved. 85234 PETERLUK BOOTHIA DIED NEW OTTAWA REFORMATION CENTER MINUS 16 YEARS SELF-HANGING."

"So Peterluk was dead before I even entered the Reformation Center, and they wouldn't tell me," Dr. West muttered. "Dead, and he was the father — perhaps the foster-father of all Esks. His own lying statements must have contained evidence of their origin. Dammit, they're not human!"

Mao III laughed contemptuously. "Many in the United States agree with you on that. To relegate Esks to subhumanity justifies buying and selling." Mao III's voice softened. "The unanswered question to me is why the Canadians finally in self-defense did not massacre enough of their Esks. Because there was some confusion due to interbreeding as to who was an Esk is no explanation. Human beings have been willingly massacring each other since the beginning of our species. But so inefficiently in Canada —"

Click, a jiggling film of men with axes and shotguns showed Esks being herded like rabbits against a fence corner, the axes rising and falling. "LYNCH MOB, BRITISH COLUMBIA," the vocoder howled. "MINUS TEN YEARS." A close-up showed a Canadian farmer retching and staggering away.

"It should have been so easy to exterminate them when there

were only a few million," Mao III mused. "Nowhere have Esks put up violent resistance. When the first rumors of the failure of Canadian rioters to accomplish anything substantial reached me, I ordered my 8th Route Army here in Peking to carry out an experimental massacre of one small commune of Esks who live on the dust desert west of Peking. By using machine guns, the number of Esks had been reduced about 10% when it began to rain. The commanding general also had other excuses. Machine guns overheated and jammed. After I removed him and ordered the massacre completed, the new commander, my former aide, General Chen Yung, had difficulty with trucks bringing replacement troops to the scene. Finally an air attack with napalm was successfully carried out, and I believe a good portion of those Esks were eliminated, although now there seem to be more out there in the desert than ever. To superstitious troops the unexpected difficulties of execution were disturbing."

"Damn right they are disturbing!" Dr. West yelled. "Here you are letting Esks increase to a billion in China, and you don't even know if you're capable of eliminating them."

"It could be done, it could be. Mass executions become simple

matters when competently organized," Mao III replied. "With historically scientific logic, Maoism can solve any problem of mankind."

"Then do it, dammit. Now!"

"Tapeworm, you forget that you are in command, not I."

Dr. West closed his eyes. *What did those jerks in the C.I.A. instruct me to do?*

"Nothing that our interrogation could locate," Mao III taunted. "Squirm, tapeworm, squirm with all the problems of the world that wiser men than you have made more complicated during each generation until —"

"Shut up!" Dr. West visualized U.S. ramjets spraying China with gynecological bacteria which would infect Esks and, of course, would have an even more virulent effect upon Chinese; that still was one unsolved problem.

Could the retaliatory Chinese counter-strike against America be disorganized from within? Dammit, I can't have been sent here for that."

"Your aggressor-indoctrinated thoughts are of the type which continually disturb my military," Mao III sighed. "As long as the Asian Continent must defend itself from imperialist invaders, our larger population is our main defensive weapon. My military will never agree to a unilateral massacre of our Esk population while

an uninspected Esk population continues to increase in the United States."

Mao III's voice rose. "The United States is using its own irresponsibly increasing Esk population as an aggressive threat to world peace. If the United States should outnumber China, and this could happen because your Esks are multiplying so rapidly, then five thousand years of Chinese cultural heritage would be threatened. Tapeworm, can't you understand that my military cannot agree to any limitation of our Esks while —"

"Shut up!" Dr. West's face contracted, concentrating all his frustrated anger against Mao III, and the paralyzed man toppled to the floor with a brain-blinding thud. Blackness!

Dr. West clawed at his own eyes, momentarily unable to see. His vision glimmering, he crawled to Mao III and shook him, then grasped for his faint pulse.

As he sat there wondering if Mao III would regain consciousness, Dr. West remembered the smug faces, the excited faces in the Harvard Circle of the C.I.A. *You smart operators, he thought, right now you must be thinking you've almost scored your biggest one. You've planted a monomaniac named Dr. West in Peking. You've used me to set*

up a teleconfrontation with Mao III.

The Secretary of State had reacted so quickly. *The ready response through Warsaw must have been prepared even before you parachuted me, Dr. West thought.*

But even if the teleconfrontation takes place and the President verbally destroys Mao III, you'll be falling into a new box of problems with the Chinese military. And the Esks still will be increasing—including increasing millions of Esks in the United States.

Dr. West blinked, and then his eyebrows rose. *What if you C.I.A. geniuses are two steps ahead of me? Could it be the President will support Mao III? That way the Harvard Circle may hope population control of the Esks in China will begin. After all, Mao III is supposed to be controlled by me, Dr. West, monomaniac hater of the Esks. If China limits its Esk population, then public opinion in the U.S. may permit the U.S. government to limit the number of Esks belonging to individuals and corporations in the United States.*

In realization, Dr. West began to shake with excitement. "Do you hope that I, the population expert, hopefully the controller of Mao III, will initiate China's first population limitation offer? And

I did! You hope this will allow public opinion in the U.S. to follow. Are you trying to control the Esk population explosion in the U.S. that you're now politically unable to do anything about?"

Dr. West propped up Mao III's head and desperately sought his pulse. "The teleconference is tomorrow!"

A red light flashed on the tele-screen. Dr. West didn't know what to do. Evidently the broadcast was of such high priority it contained a code-servo override. The screen switched itself on.

VI

Across the television screen, gracefully stroking lines of ink converged to form a calligraphic dove of peace.

A dissolve into living color showed ranks of red-necked Chinese children marching across the Great Square. Their red balloons and golden balloons bobbed over their heads. En masse the balloons rose into the blue sky. Dr. West recognized this as the standard introductory film clip used by the New China Information Agency in its worldwide telecasts. Magically all the golden balloons drifted in front of the gigantic silver rocket which protruded from the pink-walled courtyard of the Winter Palace. All the red

balloons drifted over the ancient curved marble of the Jade Rainbow Bridge. "China is a bridge of peace to all people," a soft voice hummed, and Dr. West knew translations were soothing televiewers in Afghanistan, Algeria, America.

The Chinese Foreign Minister bowed to the television audience, his hands pressed together in a gesture of peace. "Friends throughout the world, our revered Chairman, our Saving Star, regretfully will be unable to appear in the teleconference which he proposed and the President of the United States seemed to have accepted. It is well that the Chinese Federation of Nations clings to peace in this moment of imperialist aggression. Last night a black aircraft of the warmongering United States Central Intelligence Agency made an unprovoked attack upon Szechuan Province."

The Foreign Minister smiled humbly at his teleprompter. "Of course the imperialist aircraft was shot down by our ever-vigilant civilian defense militia." He nodded his head, and a film of unidentifiable wreckage strewn across mountain rice terraces was projected while his peaceful voice rose to outrage: "Unfortunately, those genocidal murderers of the Central Intelligence Agency of the United States were able to

parachute a capsule loaded with bacteriological weapons upon peaceful Szechuan Province. The shock of this treachery has caused a relapse in the health of our beloved Chairman, and he will be unable to appear on television to confront the guilty President of the warmongering United States!"

The film showed an oddly familiar terraced mountainside. Across the stair-step rice paddies sprawled a gigantic parachute. Dr. West blinked in recognition. In the mud lay a standard aircrew ejection capsule from a U.S. Air Force ramjet bomber.

". . . until such time as the United States can show a sincere desire for peace," the Foreign Minister's voice was crooning. "the Chinese Federation of Nations democratically and unanimously believes that an international teleconference would be futile."

"You fraud," Dr. West gasped aloud at the smug face on the telescreen. "That parachute, that terraced mountain, that's my old ejection capsule. That film was taken over six months ago after I—we came down in Szechuan Province."

Dr. West moaned in frustration and banged his fist on the floor and shouted at the telescreen. "Liar! Chinese generals manufactured this incident to get off the hook of a teleconference."

Beside him, Mao III's eyes had opened.

"Did you hear that, you prematurely senile-brained idiot?" Dr. West shouted, his futile rage hammering his heart. "Your Foreign Minister announced you've had a relapse. The Generals are calling all the shots. You're finished as Chairman. You blob of dead flesh, you were nearly useless even when I took control of you. Now you're nothing! I've ended as nothing. We're both nothing!"

Mao III writhed on the floor from Dr. West's radiated anger, and Dr. West grabbed his wrist, felt for his erratically shivering pulse. Mao III's heart was fibrillating. Dr. West tried to calm himself, and gradually Mao III's pulse regained a semblance of a rhythm.

A brilliant stratagem. All are loyal to the line of Mao, Mao III's erratic thoughts seeped. China is Maoism, and I am Mao, and all is well.

Dr. West stared in frightened fascination at the Command Microphone on the console. He couldn't endure waiting. He had to know. Could he—Mao III—still broadcast orders from this vault? *IS THE POWER DEAD?*

"Dead?" Mao III's voice chirped with startling cheerfulness. "I am nearly dead. But I have pa-

tience. Help me up, my tape-worm. I will die peacefully in my bed. No man expects more." His personality seemed altered. "My generals will have to wait. I have a headache. Perhaps they may need me tomorrow."

Dr. West dragged him to the console and ordered him to contact any place on the surface, the Interrogation Room. Mao III did not respond.

In Dr. West's arms, Mao III was a frail sack of bones, smiling blissfully as if unaware of Dr. West's order.

"Have patience," Mao III sighed. "This is how I control my generals, patting one dog, then another until they snarl at each other in jealousy. I have patience. They will fail to negotiate their differences. Power is Mao. All will be well."

Dr. West emptied him onto his bed, and Mao III's face sagged in a smile like melting wax. *All will be well.*

Mao III's personality seemed so softened that Dr. West surmised another hair-thin vein within his cerebrum painlessly had ruptured. Another tiny area of his brain tissue was dying. Mao III had undergone another little stroke.

"I am *Chiu Hsing*, the Saving Star," Mao III sighed dreamily. "Grandfather Mao and I are history. I am the unifying symbol

for China, power and love and forgiveness. When my generals bow down before me, I will ask that you be painlessly shot."

Dr. West made no comment.

Mao III closed his eyes.

While Mao III sank easily into the smiling sleep of the pure-in-heart, Dr. West glared at the oppressive ceiling. Sleepless, Dr. West writhed. He sat up and stared at the Control Console.

With surprising mnemonic power Dr. West remembered from watching Mao III the pattern of pushbuttons which should open a command line to the surface, in this cautious instance to the Interrogation Room. On the tele-screen the white Interrogation Room appeared, empty except for the modernistic electronic interrogation table and an old Chinese on his knees, scrubbing the floor by hand as if he had remained in the 17th Century.

On the console in front of Dr. West glowed the light indicating the Command Microphone was *live*. It dazzled with power. Dr. West whistled into the microphone. The old man did not look up.

"Summon your superior," Dr. West commanded in impeccable Neo-Chinese, and still the old man went on scrubbing. "Stand to attention or be shot!" Dr. West snapped, beginning to sweat with

anxiety as the old man continued wearily sloshing his big hand-brush back and forth on the wet floor as if he had not heard.

"Deaf fool!" Dr. West shouted in frustration, while the old man sloshed his brush in the bucket.

Dr. West knew he didn't hear. The military already must have cut the external broadcast wires. Reception still worked when he pressed another button on the console. For the moment the Command Vault still retained its exterior television eyes. The tele-screen showed Chinese troops climbing into armored trucks.

The military have cut the vault's throat, Dr. West thought. *Mao III's — my ability to broadcast is finished. No more commands to the outside. What do I do now?*

Numbly sitting, Dr. West felt amputated. *No more commands to the outside*, Dr. West felt himself shriveling. *My purpose is gone.*

"Gone! Got to get out." He could feel the ceiling pressing down, 4,000 feet of rock and subsoil and earth crushing him into thickening claustrophobia as he walked, not ran, to the elevator.

His face twisting with pain, he turned around and ran back to his bed and covered his head.

Even if they don't shoot me when I appear at the surface, I'd be powerless. Free on the surface

I'd be nothing. I would see the billions of Esks increasing while I did nothing, having lost the chance for power.

Dr. West turned over on his back.

I'm lying here in the vault of power. The power's off but my hope . . . He tried to open his memory, to search through the shambles left by Chinese electro-interrogation.

He visualized the faces of the Harvard Circle bending over him in the basement of the Central Intelligence Agency building.

Bunglers, each subliminal instruction was to be cued by predicted events. But this is a terminal event. Please let an alternate plan rise to the surface of my memory. Oh God, how I need . . . Have you deserted me?

As if those distant faces had become his gods, Dr. West prayed for a vision and felt only the endless emptiness of the Universe.

What was any purpose? Dr. West lay on his back feeling waves of Universal time curving back to the edge of sleep.

Suddenly he smiled. *Perhaps I am all-important. I am the seed of life in this buried vault.* He slept and dreamed he arose with power over the world: "The Esks are to be sacrificed to me." He was huge and snow white as a polar bear.

Awakened by the cautious movements of an Esk with breakfast tray, Dr. West sat up, blinking. He got up, wandered over like an early morning drunken bum and stared wonderingly at Mao III.

"When I wake up too soon," Dr. West muttered, "I see these Esks as something else." For breakfast he was unusually hungry. He ate ravenously.

Mao III did not open his eyes. *Why your hatred of our gentle Esk comrades, they who feed us?* His dagger-sharp thought incised, *if you had been born in the closeness of a Chinese commune you would be an open man instead of a closed man.*

"I don't hate them. I have never hated them." Dr. West was wide-awake now. "But as they increase, crowding me everywhere, I feel my elbows, my teeth . . . Why is that light blinking?"

"Activity outside the surface entry door," Mao III said quickly, his face blooming in a smile. "My generals—"

Pushing the proper combination of buttons on the console brought a picture of workmen welding the steel frame for a steel safe door approximately one foot outside the surface entry door. They were working directly under the warning lens so that Dr. West was looking down at them. When he shifted to a second lens

at an oblique angle, military officers in black uniforms were revealed watching the work from further away within this great concrete surface blockhouse which was concealed within the ancient Winter Palace.

"They are too small for me to recognize their faces," Mao III muttered from his bed. "So our surface door will become a door within a door."

"Instead of simply welding our door shut." Dr. West carried Mao III's slack body to his chair.

"Historically, Chinese are cautious because they are so intelligent," Mao III said unselfconsciously. "Those who possess the key to the new outer door can reach me quickly enough when events so guide them. Welding my door completely shut would have seemed to irrevocable. There is more artistry in a door within a door. I may be needed tomorrow."

A fading illusion, Dr. West thought. *We are being permanently sealed down here with the Esks.* "There are too many Esks down here to be fed, and on the surface they are multiplying as if all the nations of the world have less foresight than ants." Dr. West's voice rose. "At least ants recognize intruders in their nest as enemies! I've got to get out of here."

"You fear even my Esk ser-

vants?" Mao III asked and smiled. "Since I, too, once placed great value on survival when I was younger, there are freezers full of supplies in this vault for myself and fifty Esks for twenty years. The vault was constructed and stocked during a period when I thought the American hawks were suicidally sincere in their talk of preventive war. Breathe this sweet air. It is a recirculating system which cannot be poisoned by surface assassins, either Chinese or American. We can wait, self-sufficient, safe, years longer than in a submarine. My vault is protected by 4,000 feet of solid rock. If the United States warmongers had attacked and won, amusing word, I could have waited down here like a Seventeen-Year Locust and then emerged with my own personal Esks to repopulate the world."

An Esk carried away the breakfast tray.

"You were looking at one of my sons," Mao III said proudly. "Until my stroke three years ago I was extremely functional. The historical duty of a great man is to pass on his seed."

In the concrete corridors which surrounded the inner vault, neatly uniformed Esks wandered as if there were not enough work to do. Dr. West noticed a few young Esks dressed in what ap-

peared to be bedsheets, as if there no longer were enough uniforms for an increasing number of Esks. Hordes of naked children skipped gaily ahead of him in the corridor.

Beside Dr. West, an Esk pushed Mao III's wheelchair.

"Already you are plotting how you can murder my children," Mao III said pleasantly, as they passed the steel door to the tunnel which led down to the atomic power source.

"Speculative force of habit," Dr. West replied as calmly. "Yesterday, I showed one of your sons, or grandsons, how to conduct a census by touching each Esk with a dab of red paint so he wouldn't count the same child twice. I showed him how to make counting marks on a tablet. There are twenty-eight mature males, twenty-two breeding-age females and — brace yourself — 396 children and babies."

"Under normal conditions the excess children are sent to the surface," Mao III replied as if undisturbed. "It has been convenient that the babies need to be breast fed for less than a month."

"Sixty-two of the children would reach breeding age if we were down here a year," Dr. West remarked. "Of these, 32 are female."

"It is unlikely we will be down





THE PURPOSE OF LIFE

here a week," Mao III replied. "My generals will need me, as they always have needed the line of Maos."

"Then this is purely a theoretical problem," Dr. West shrilly laughed. "The 32 newly breeding females added to the 22 females now adult, means there would be 54 breeding females within another year. Suppose we're optimistic and estimate two menstrual wash-outs or miscarriages per mother during the next 12 months, each of the 54 women would give birth to only 10 children instead of 12, for a total of 540 more mouths to feed. And I'm forgetting to add children born to the 22 existing mothers this year."

"You're talking as if we could be left to stagnate down here for two years," Mao III laughed. "The generals will free me and kill you within a month."

"In two years, counting existing Esks, mainly children now, plus babies who will be born, the total numbers of mouths to feed will be more than 1,000."

"You are intimating I lacked foresight because there are only supplies for fifty Esks for twenty years."

"Supplies for fifty Esks for twenty years equals supplies for 1,000 Esks for one year." Dr. West walked toward the myriad sounds of babies.

"I am as familiar with arithmetic as you are," Mao III's voice retorted triumphantly. "I also am familiar with birth-control pills."

"I can see from the age distribution of your Esks and the terrible preponderance of children, that no birth-control pills are being used," Dr. West said softly as he stepped into the crowded sleeping dormitory, his nose wrinkling.

"These are my grandchildren," Mao III replied. "So there has been no reason to stifle my own ancestral line with pills. Do not panic. My generals will free me in a few days; and if the generals procrastinate and you become frightened of all those harmless Esks, there is a whole closet full of birth-control pills."

Dr. West blinked. He smiled fleetingly.

"It might be wise to start testing these pills," Dr. West remarked as if it were of no importance.

He had glanced into the steam-blurred kitchen where Esks were boiling rice and freeze-dried vegetables. "Supplies for fifty Esks for twenty years will last us one year unless the pills are effective."

"We will not be down here three months." Mao III's tone of voice was a verbal shrug. "But you are a medical person, and it might add to your medical knowl-

edge if you begin testing the quality of those pills. They were manufactured in the United States."

When Dr. West opened the closet, he recognized the pills as an abortafacient developed under the guidance of his successor at the Institute for Oriental Population Problems Research on a grant from the Department of Defense. Dr. West assumed they had been tested on Esks. Only one abortion-inducing pill a month was necessary. In Canada it had been found impractical to force Esk women to take the daily pills.

Taken only once a month, ideally before the woman had grown large from her monthly pregnancy, these abortafacients would do the job for a while if the Esk women would swallow them.

Dr. West smiled grimly, thinking: *That brilliant mathematician, Mao III, has stocked twenty large jars of 300 pills each. That's 6,000 pills. Mathematically, enough pills for 25 women for twenty years. Assuming the pills are 100% effective, by the time all the existing 396 children mature, even assuming no new births, in three years we will have a total of 220 females of breeding age. They will need 2,640 pills each year. "There won't be enough pills to complete the*

fourth year. Chemical birth control will cease. Soon we'd be jammed shoulder to shoulder except for one lucky circumstance. We already will have starved to death."

"But I'm ever the hopeful experimenter." Dr. West wondered if he would be more successful than the Canadians in inducing the Esk women to swallow monthly pills. "I can't use force. Too many Esks. I can try deception." He slipped one bottle under his coat and carefully locked the closet. He frowned. *Why did the Canadian government fail?*

He waded through naked children romping in the thermostatically heated corridor.

The abortafacient pills so strongly contradict the Esk women's instinctive purpose in life, he thought, what awful things happen when we trick their instinctive urge to give birth?

In the crowded dormitory, he stared at an Esk woman sitting on the edge of a cot, hunching over her baby. Her strong hands were steadying her newborn baby who was hungrily suckling her breast.

Genetically formed in both of you, Dr. West thought, is such an overwhelming urge to multiply. Even stronger than ours.

He knew within the uterus of this blissful woman the next fertilized ovum already was cling-

ing, growing, already a fetus, efficiently growing without wasted energy or unnecessary gills or prehuman tail, and in less than a month it would emerge into the world. *Your whole being, all of those smiling instincts, your in-offensive survival instincts were designed by something to help your rapid multiplication. And you help each other. Unlike men, you don't kill.* Uneasily he smiled down at the woman, who cradled her baby protectively in her arms.

Mother, he thought, would anything you suspect of interfering with your purpose in life cause you to — But I've never heard of Esks deliberately killing anyone, he thought. *I should be safe enough.*

He gave twenty-two pills to the steward, who seemed unusually intelligent. Although his Esk characteristics were dominant, the steward undoubtedly was one of Mao III's sons. He listened placidly to Dr. West's instructions. "You understand," Dr. West repeated, "these twenty-two calcium pills must be given only to each woman. That is, one to each woman."

"Eh?" The Esk smiled.

"One pill for each woman in her rice," Dr. West said. "Tonight. Good calcium pills to make bones strong," he lied.

"For babies?"

"No, for the mothers! Give the pills to the mothers."

As Dr. West returned to the Control Room, Mao III was leaning toward the telescreen, his skeletal face twisting in a comedy of outrage and black humor. Mao III blinked at the telescreen.

"I am reported to be dying. A national year of mourning is being prepared. This same day Chu-Ti's personal aircraft has exploded in flight, accidentally, the tele-announcers say. Lin Po died last night at a banquet, of indigestion. Here in Peking, Chen Young's 8th Route Army has cancelled all leaves."

"In the south," Mao III laughed nervously, "Peng Huai's troops have entered Canton to calm a very little disturbance caused by less than a dozen ancient reactionary revisionists who drank too much wine. His troops temporarily have occupied all the airfields and the television station." Now Mao III laughed as faintly as the ghost of a man. "The Canton dogs say they are preparing for democratic elections. No doubt the general with the most troops hopes to receive the most votes."

"When their armies have bloodied the streets," Mao III muttered, "and still the fighting continues, they will remember me, their Saving Star." He laughed faintly. "I can rise from the dead?"

After a silence Mao III opened

his eyes and announced: "The survivors will unlock my steel door, and I will permit them to come down in my elevator and bow down before me. Humbly the surviving generals will beg me once more to command all China."

Dr. West made no comment.

The next day many television stations transmitted only their focusing pattern, the white lotus star. From the south, few broadcasts showed waving flags and martial music and schoolgirl poetesses with Cantonese accents reciting instant odes to the heroism and patriotism of General Peng Huai, Savior of Canton, Savior of China.

"Southern traitor," Mao III blurted, and his quick fingers clicked through the other stations. "This Cantonese rebellion will produce loyalty in Peking to me."

The next day none of the Peking stations were broadcasting.

In the dormitory, Dr. West stared anxiously at the Esk women. *They should be aborting by now*, he thought. None of them showed any discomfort.

As he walked back along the corridor, Dr. West noticed a scar on the doorjamb of the closet, beside the lock. Breathing hard, he unlocked the closet door. The jars still were white with pills —

no, with grains of rice. "The pills, where are the pills?"

The steward continued smiling while Dr. West violently shook him. "Pills?" the Esk gasped. "Please, sir, which pills?"

"Did you give the women the pills?"

"Eh?" the Esk giggled with embarrassment as Dr. West stopped shaking him. "This person gave away pills."

"You're lying."

"Eh-eh, this person is lying," the Esk laughed placatingly.

"Where are all the other pills?"

"Eh? Pills here? This person does not know."

"The whole closet was full of pills!" Dr. West shouted.

"Eh-eh, this person is telling the truth. No pills."

"You're lying."

"This person is lying," the Esk patiently agreed as if soothing an insane man.

Dr. West hurled the unresisting Esk to the floor. "Where are the pills?"

By now most of the Chinese television stations were off the air. Some of Mao III's random surveillance cameras, which were automatic equipment, showed circling flies, perhaps distant aircraft circling clouds of smoke beyond the horizon.

One surveillance camera suddenly blurred with the too close face of an Esk smiling stupidly.

That night Tele-Pravda's satellite broadcast that General Peng Huai's troops from Canton were meeting only token resistance outside Nanking. A victorious Cantonese television broadcast was expected hourly.

It came with joyful music and a triumvirate of smiling Chinese physicians, the first doctor announcing that the beloved Chairman, Mao III, was showing superlogically materialistic improvement from his three-year illness. The second announced that new developments in traditional Chinese accupuncture had completely cured the paralysis from which their beloved Chairman for three years had suffered. The third announced that the Chairman, the Saving Star, now was able to speak to all of his people.

In the dim vault, Dr. West watched Mao III's expression change from surprise to rage to blankness.

VII

On the telescreen a Mao III appeared, walking briskly forward. With sturdy peasant gestures and a confident voice, this Mao III reassured the world that: "The Maoist Party shines like a gun barrel! Your Chairman once again is able to labor for the welfare of the people. All is now peace, for I am with you."

This Mao glanced at the teleprompter and announced that he had appointed General Peng Huai of the Canton Military District to rebuild three bridges to the people, to assume three responsibilities. "Minister of Defense and Agriculture and Internal Security." Pseudo-Mao bowed imperceptibly. "General Peng Huai, his heroism has saved my life, and through me the life of China."

"With Comrade Peng Huai's guidance we shall build an even larger China, worthy of our great population. Together, arm-in-arm, we will lead all the free peoples of the world into the future."

Beside Dr. West, Mao III gurgled with rage, and Dr. West remarked: "Is that one of your former doubles? You used so many to confuse your assassins. Now they've discovered one Mao is as good as another."

Mao III glowered at the waving flags on the screen, the rising balloons, the traditional ranks of marching children, until the Canton station abruptly signed off the air. "Air raid warning!"

"I will be rescued," Mao III blurted. "My favorite general, Chen Yung, commander of my personal 8th Route Army here in Peking. Now he will need me to expose the imposter. My General Chen Yung personally will come and bow down before me."

There was more news about the air-raid scare. False warning.

The next morning Tele-Pravda reported that General Chen Yung, Commander of the 8th Route Army based in Peking and formerly considered the most influential of the inner council of generals, and the former favorite of Mao III, had been appointed Ambassador to South Belgium. "General Chen Yung already has departed to assume his new post."

"If his aircraft does not explode in mid-air," Mao III hissed and began to sob like a little boy who has lost his last toy.

"Which leaves us with the Cantonese General Peng Huai consolidating his power." Dr. West asked, "Do you recall Peng Huai's attitude toward future increase of the Esks?"

"That traitor first gained notoriety as Field Commander in our pacification of India." Mao III smiled crookedly at Dr. West. "Peng Huai always has maintained that China will need many more people for a still greater effort, therefore as many Esks as possible. Each Esk replaces on the homefront a peacefighter to free the world. Have I answered your question?"

That night, Mao III cried out in pain. Rising, Dr. West saw that Mao III was suffering a more massive stroke. The whole left side of Mao III's face was twist-

ed down. Even when Dr. West's mind strained to help, Mao III was unable to speak as his thoughts leaked out: *Tapeworm, leave me alone. At least permit me to die.*

But Mao III's right hand twitched in a signal for his Esk night servant to bring him a sip of water.

Finally, Dr. West walked away. When Dr. West was able to escape into sleep, in his dream he was clutched by a nightmare earthquake shaking apart the elevator shaft to the surface, filling it with rubble, squeezing the vault while the smiling Esks grew like balloons filling —

The bed shook him awake as he sat up, his eardrums still echoing the dull thud of an explosion?

The lights still worked. He blinked at the ceiling of new hair-line cracks in the concrete here 4,000 feet deep in the earth. Now, through the ringing in his ears, he could hear the excited chattering of Esks.

He noticed an Esk standing stupidly by the locked control panel, an oddly shocked expression for an Esk. No smile now. It was Mao III's night servant. Swaying from the Esk's hand hung a thin silver neck-chain dangling the key.

Dr. West's hand rose to his own

neck where the key had been, and he bounded across the room, seized the key from the unresisting Esk.

Dr. West stared at the lock turned to a horizontal position above the depressed red lever. "You idiot." The dull thud had been an explosion at the surface.

Dr. West remembered Mao III's mental slip: The vault's defensive threat was the small nuc device encased in tons of concrete beneath the Winter Palace. As Mao III's last act it could be detonated by this lock and red lever, to scal off this vault in which Dr. West stood breathing hoarsely forever.

"You suicidal fool," Dr. West blurted at the Esk. "And you stole it from me while I slept. Tell me why —"

The Esk smiled with nervousness and glanced toward the dragon-curtains of Mao III's sleeping alcove.

Dr. West tore open the curtains. "You paralyzed old fool. You communicated to this Esk to steal back your key. Wonderful! Bang! You've sealed us forever in this coffin."

Mao III's lopsided face smiled up at him. *Tapeworm. Fear?* Mao III's triumphant thought filtered out of his blood-clotted brain. *You are unable to think. You must listen to my thoughts.*

"Like hell I will!" Dr. West

ran along the corridor to the elevator.

The elevator door bulged out jaggedly from the mass of smashed rock which had jammed down the shaft.

He tried to calm his unevenly thudding heart.

He walked to the end of the farthest concrete tunnel and stared at the concrete wall. "It is not possible to dig out. We're nearly a mile beneath the earth." He trudged slowly back with his hand pressed against his breastbone and flickers of reflected pain inside his left arm. "If I'm going to drop dead — heart. Good! Now!"

But he took a nitro. He searched through janitors' closets and a small storeroom containing trays of spare modules for the computer and a vast storeroom of tiered shelves stacked with plastic-wrapped, freeze-dried vegetable bricks. He wandered between mountains of sacks of rice and on into the kitchen equipment room.

By now he carried a crowbar he had found, and a handful of flimsy plastic-handled screwdrivers and a ball-peen hammer. He found a short-handled scoop-shovel for loading rice — not intended for digging straight upward through 4,000 feet of rock formations to the surface. "Got to get out!"

When the next pain in his chest subsided, he herded eight male Esks to the end of the corridor and set them to chipping at the concrete wall. The plastic split from the handles of the screwdrivers, and the soft iron shafts bent. The head of the ball-peen hammer popped off. The crowbar bounced back from the concrete with ringing protests.

Dr. West located an electric twist drill and enough extension cords, and the whole set of steel drill bits soon was ruined. He unbolted the hinges of the massive steel door of the Power Source room, and eight heavily breathing Esks carried the steel door up to the end of the corridor. The corner of the steel door made a clumsy battering ram. The noise was deafening. Wincing, Dr. West stared toward the shower room and visualized a long hose.

The concrete within the corridor wall seemed slightly softened after a stream of hot water was hose-lengthed from the shower room.

"Cheap Maoist concrete," he laughed shrilly. "But who could make a profit?"

After exhausted relays of Esks, the clanging corner of the steel door smashed through concrete into darkness.

Dr. West leaped forward as if into a miraculous hidden tunnel, but his flashlight illuminated

only the yellow-brown solidity of prehistoric sandstone strata, 4,000 feet beneath the present surface of the Earth.

The battered point of the crowbar, hurled full force, penetrated nearly an 1/8 inch into the sandstone. It left a tiny dent.

"This damned sandstone's been pressed down here so long and hard, it's not even sedimentary. For me, it's hard as metamorphic." Sourly smiling, Dr. West set the Esks chipping upward at a 45-degree angle. "Not too steep for you to scramble up a gopher hole barefoot, yet steep enough for the debris to slide down."

He foresaw a narrow tunnel with one Esk digging at a time. It would have ventilating problems enough without being stuffed with other Esks passing the debris down by hand. He found a draftsman's 45-degree triangle and tied a string to a bolt. He suspended the bolt from the triangle like a plumb-bob. "You see the direction? Dig upward in line with the hypotenuse of this triangle."

"Eh?"

"I mean the tunnel must line up with this longest leg of the triangle."

"Eh?" These Esks all smiling stupidly made Dr. West want to scream with rage.

Smile, Dr. West thought at the

cheerfully scurrying Esks, who already were carrying away double handfuls of granulated sandstone. *Smile, at least this work gives you another purpose down here besides —*

Their primary purpose scampered small and naked on the corridor, more children each day. Children's fingers traced childish symbols in the sand spilt on the corridor floor; circles, circles around circles and an amorphous blob reminding Dr. West of a bear.

In the shoulder-wide hole up into the hard sandstone Dr. West measured daily progress. "A good 3 feet in the last twenty-four hours. I like you, all of you. Now, dig faster!"

Dr. West exploded in irritation. "No! Don't dump the sand in the shower room! Empty it in the food storeroom."

Each day there was more space in the food storeroom to store and — less rice.

During the "night" shift below the sounds of the upward tunneling Esk, Dr. West scowled at his pencil diagram on the wall. It was a right triangle with its hypotenuse at a 45-degree angle to its vertical and horizontal lines.

Beside the vertical line he wrote: 4,000 feet up. Beside the horizontal line, he also wrote

4,000 feet. They would not emerge too near the small nuclear blast. He scowled at the diagonal line symbolizing the tunnel. "This damn gopherhole hypotenuse will be a lot longer than 4,000 feet, you — ghost of Pythagoras. The sum of the squares of the other two sides is 16,000,000 plus 16,000,000 equals 32,000,000. Now what in the hell is the square root of 32,000,000? It's more than 5,000 feet! This slanting tunnel will be more than 5,600 feet long. Digging 3 feet per day, that's 1,866 days!"

He stared at the unhearing Esks. "God help us all, 1,866 days. that's 5 years!"

He walked into the food storeroom where Esks were piling sand from the tunnel. "Even if these smiling fools could stop having babies right now, this minute, all the food, just for the Esks alive right now, will be eaten before two years. This stupid tunnel will starve to a stop not halfway to the surface." He smiled like a starving clown. "We will have eaten ourselves to death three years below the surface."

I'm not going to murder any Esks, he thought. I don't want to. If I killed a few, the others gently will restrain me. If the humans on the surface can't effectively control their increasing Esks, how can I? On the surface, the humans have the guns and are

supposed to have the brains, but the Esks still are multiplying. Down here, I'm already outnumbered 500-to-1, and more Esks are eating more each day. Could I create a poison?

His face twisting from his heart pain, Dr. West looked across the food storeroom at the children laughing and rolling down the sandpile. At the edge, a little boy was dragging his finger in the sand so that the concrete floor showed through.

"What are you drawing?"

"Eh? Grandfather Bear — so he come for us."

"Down here?"

"Eh!" The little boy shaped the sand and patted the sand.

Dr. West turned away, his chest tightening with pain. He sat down against the concrete wall. A little girl ran over, threw her arms around his neck and snuggled on his lap. His breath tickled the delicate beauty of her ear, and she giggled. He closed his eyes, motionless and unbreathing as concrete. When she went away, he considered suicide.

Instead he gathered the 28 adult men and the 22 mature women together, only now there were 30 mature men and 29 pregnant women. He drew pictures on the wall showing the great distance to the surface. He

drew squares of diminishing size showing that there soon would be no more food. The Esks giggled, and Dr. West saw that one, aping him, was drawing on the floor — a bear? "Dammit listen to me! Something must be done."

Smiling patiently, Esks volunteered to eat less. One man would stand guard outside the food storage room.

In the artificial night, children began to whine with hunger, disturbing Dr. West's sleep. In the artificial morning, Dr. West read from small footprints in the sand that children had been allowed to enter the storeroom to gnaw at the freeze-dried vegetable bricks.

When Dr. West tried rationing the food himself, after locking the storeroom, the Esks were cooperative. In the night hungry children cried, and the Esks gently took the key away from Dr. West without hurting him and opened the storeroom and everyone was happy again.

When Dr. West stared down at Mao III's lopsided face, the eye opened. *Help me, the desperate thought rose, to speak.*

Concentrating to the utmost, Dr. West was unable to control Mao III's damaged speech center, and Dr. West thought! *Only the spark of a man remains.*

Bad poetry while you look at my living corpse? Mao III

thought with surprising strength.
Kinder to kill me.

"Then who would I talk with?"

How many Esks have you murdered?

"None," Dr. West answered.

Fraud, you thought you could solve the Esk problems of the whole world, but you can't even control this vault. Mao III's thoughts sparkled with laughter. Paint a line across the corridor, separating the men from the women.

"You are taunting me," Dr. West replied without anger.

Induce the mothers to sacrifice their babies to a god, either you or me.

"In Canada the Esks shielded their babies from the mob with their own bodies."

Ineffective mobs in capitalistic countries. Arrange a mirror so I can see the telescreen.

"Strangely ineffective mobs. Your surface explosion destroyed our T.V. antenna."

If you understood statesmanship, you would divide our Esks into two tribes. Paint the foreheads of one tribe white, the other tribe black.

"We both know they're not that genetically combative. They're not as self-limiting as some human populations have been. No wars."

Somewhere in the Data Retrieval Computer, ancient Poly-

nesian Island customs effective when not enough taro patches for growing population, and a protein shortage. Use the pushbuttons on the console.

"Not any more. I was passing an hour playing the console, endless interesting data pictures from your computer. Already I can play it like a piano. But suddenly, only a repeating pattern of information about weaving, volcanos, avacados and phrenology appeared in the screen, as if the Data Retrieval System had suffered a stroke. I replaced what seemed to be the damaged module, and now the computer doesn't work at all."

Because you have the wrong specialization, Doctor, you don't even understand any rational Maoist science. With minimal intelligence you should be able to lead the Esks to the one logical course — cannibalism.

"Stop taunting me. There have been no examples of Esks killing each other for food, not in Canada — have there?" Dr. West wondered if, in the last extremity of starvation and still driven by their urge to multiply, if the adult Esks here might feed their own bodies to their children. "I doubt it. At least not organized —"

Not yet organized makes it easier for you. There are no

troublesome congenital leaders among the Esks. You should be able to organize these few Esks in any behavior pattern you decide.

You flatter me. For me, one man, now to curb the Esks' overpowering instinct to multiply like lemmings, after all the Canadian attempts to organize birth control among the Esks failed."

My Szechuan agricultural planners easily organized millions of Esks to hand shape mountains into rice paddies.

"Easy because it was helping Esks multiply."

For Maoist progress, yes, Esks were so much more easily controllable than Chinese within my twenty-year plan. If you imagine yourself my intellectual equal, you should be able to organize the lives of these mere 500 Esks so that one of their overpowering instincts will conflict with another, and they will destroy themselves. This is how I maintained control over my generals.

"And look at you now!" Dr. West immediately realized his own retort was inadequate, childish because Mao III had retained power longer than most leaders; any leader can suffer a brain-stroke, and all men sink into death.

Having nothing better to do today, I am trying to help you.

"I doubt that!" Dr. West



seemed unable to restrain childish anger, "How were you so stupid as to help Esks multiply like a billion cancer cells in China? Brilliant leader, you can't answer. Perhaps Esks have an as yet unidentified psychological advantage. Unobtrusively they are leading us."

Ridiculous! You are a defeatist born of a disorganized nation whose historical moment has passed. If my television still were operating, while you starve you could watch the triumph of Maoism throughout the world.

"Triumph? The population of the world already is 6 billion humans, 2 billion Esks. Next year there will be 6¼ billion humans and 4 billion Esks. The next year 6½ billion humans and 8 billion Esks."

Statistical trickster. Any fool knows that the rate of Esk increase will slow down and then stop. In America, when your relatives feel the bite of hunger in their fat bellies, they will limit their Esks. With guns and clubs if necessary. In China, rational Maoist economic planning will reveal when the number of Chinese Esks is optimum, and further increase will be discouraged.

"Are you sure? That is not how things ended in Canada. Is it possible that the Esks have an over-group psychological influence on our actions?"

Now you are a small boy whimpering at the darkness which conceals nothing but your teddy bears.

At this thought, Dr. West broke into laughter like dry coughing. "I've been a small boy — whimpering, warning for twenty years. And ever since the first five years, those first Canadian years, the Esks have been recognized as a population problem. But they have continued increasing. Name for me one instance in which organized human activity effectively has limited the number of Esks anywhere. The few lynchings, your experimental napalm, ineffective pinpricks! Name an effective population control action. It's been all talk, and the number of Esks keep increasing."

Loud prophet, emerge from your hole and take action, Mao III taunted. There still is time. I have been told that the world can support a population of 24 billion.

"Only if the number is approached gradually over the next hundred years. Even with only more humans breathing on our necks, we haven't time, even with developing marine plankton farming and direct chemical food sources. Why am I wasting my time talking to you? Up there, anarchic collapse will come be-

fore the population totals twelve billion, and after disorganization of food distribution, the world won't support two billion.

It would support more Esks than that, Mao III taunted. They don't eat as much. Because they are here, Esks who worship —

Dr. West whirled, staring in recognition at the gold-painted dragon which still grinned above the blinded telescreen. The dragon's claws were painted red. His hungry jaws symbolized —

"Malthusian nightmare!" Dr. West's voice shouted. "Or Freudian dinosaur. You'll symbolize whatever I want you to symbolize.

He clutched his head in his hands, trying to understand the Esks.

In creation, an effective religion also must conform to the most pressing needs, Dr. West thought, of its creator.

He stalked through corridors where the Esks merely stepped aside. He unlocked the huge empty room Mao III's architects must have intended for —

"Official Audiences, but these last 3 years since his stroke, that egomaniac was afraid, avoided being seen. I'll meet with all 80 adult Esks at one time, only I won't be here." Dr. West locked the door from the inside and set to work inside of the Audience Room.

VIII

When he emerged wearily, his work incomplete, he locked the door to the huge room behind him and wandered back to the Control Room to sleep. But first, in the Control Room he unlocked the Master Heating Panel and did something. "Like a god, I control the weather."

When he awoke he was shivering slightly. As he walked past Mao III's curtained bed, he detected distress, shivering, but continued to the Master Heating Panel, unlocking its little metal door again.

Inside gleamed the row of temperature control dials, one for each room in the vault, others for the corridors.

Only their coil thermometers were concealed in the individual rooms. The other elements of each thermostat were here in front of him.

"Maoist architecture — central control of all thermostat settings." With a cold smile he turned down each thermostat another degree. "This control room also must be equally chilled or eventually, as the Esks become painfully cold, they'll all crowd in here, squeezing around me like a demographer's nightmare of the 1000% utilized planet. At first there must be equal cold throughout the vault."

Dr. West located extra blankets for Mao III.

Apparently in China, Dr. West thought with wry humor, or at least in this Command Vault, electric blankets are banned for their softening revisionist tendencies. He suspended a small electric radiant heater above Mao III's curtained bed.

I am shivering. My tapeworm, who will soon be without a host. Why not painlessly smother me with a pillow instead of chilling me to pneumonia, to which I already have been susceptible. I wish to die, but I dread the choking sensation of pneumonia fluid in the lungs. Simply use a pillow.

"I'm not your assassin. I'd be lonely without you, mine host." Dr. West went away to get the paint and loudspeakers; laden with tools, he unlocked the Audience Room.

Each day he worked alone in the huge hollow-sounding Audience Room. After he had hung the black curtains the echoes were muffled.

Each day he reduced the temperature throughout the vault one degree. As a side effect of the cold, the Esks digging the tunnel worked faster. Dr. West soon wore overshoes with three pairs of socks. Chilled, he donned two layers of padded uniforms and wrapped a blanket around his shoulders and ate more.

Unfortunately, the Esks also ate more. Since few of the children had shoes, whenever they tired of running around they huddled rubbing their feet, whimpering.

"But human children would have colds and pneumonia." Dr. West coughed and laughed and cleared his phlegmed throat. "Comes another Ice Age, only Esks would prosper."

With disturbing initiative the Esks in the kitchen left the electric cookstoves on all the time. Esks smashed chairs in the dormitory and built a fire nearly overpowering the carbon dioxide-monoxide filters.

"Dammit, you nearly fumigated us all." As Dr. West stamped out the fire, he felt a gentle hand on his shoulder. The Esks were on the verge of restraining him. He wondered, if warmth had become so vital an instinct that they would —

"Warm today, disregard tomorrow," Dr. West muttered his conscious superiority at these people, but he worried that eventually the Esk servants might realize how the thermostatic heating system was controlled, and the Esks gently would take control of the weather in the vault.

He accelerated his plan. Unlocking the Heating Control

Panel, he turned up on thermostat. It was the thermostat whose coiled thermometer element was in the Audience Room. "Warmth will become like heaven."

When he unlocked the warm Audience Room, delicious warmth spread outward to the chilled faces of children in the corridor. He said: "Go away." But elusive children slipped by him.

"Stay out! This is for adults." He discovered there was no way to keep the children out.

The crowding Esks were so solicituous of their children that they smilingly ignored his protests and pushed their children past him into the darkly warm Audience Room. The women carried their babies in their arms into the heavenly warmth. The room jammed with all 800 Esks. He'd intended only the 80 adults. Shoulder-to-shoulder, luxuriating in warmth, the Esks were smiling sleepily at the black curtain Dr. West had arranged to conceal the loudspeaker. Now they were peering with recognition, with whispering excitement, at the life-size portrait Dr. West had created on the black curtain with white paint. Before leaving the dim room, Dr. West switched on the spotlight.

Against the curtain, the spotlight's circle enshrined the immense snow whiteness of the polar bear.

Hypnotically humming behind the curtain, the electric fan made the curtain undulate, and the bear moved. In the sleepy warmth, long staring into or from the centered whiteness, the gigantic polar bear seemed, even to Dr. West's eyes, to be enlarging.

Children whimpered, gasping for breath in the thickening atmosphere. Dr. West slipped out of the over-crowded Audience Room into the cold reality of the corridor. He hurried along the concrete corridor to the Control Room.

His heart drumming with excitement, he stared at the closed-circuit image being transmitted to the telescreen from the Audience Room. He pursed his lips and blew softly against the microphone on the control panel.

On the telescreen, from the Audience Room, the thickly crowded Esks seemed to sway. He was seeing them from the camera eye high in the curtain above the bear. He felt himself high above the multitude, as if floating above the excited smiling faces of the Esks.

Are there instincts stronger than life? Dr. West thought, stronger than this multiplying like rodents for no purpose other than more life itself? Is this the end purpose for which the Esks were planted on this Earth?

"Look at me," Dr. West breathed in Modern Eskimo, and the Esks' eyes widened. He knew they did not comprehend his Eskimo words, and he inhaled, preparing to speak to them in the simplified Chinese that their recent Esk progenitors had absorbed during these fifteen Chinese years since they were flown here from the Arctic winter night.

For many nights he had been planning what he would say, remembering what he had said before, remembering the prophetic excitement in the igloo so long ago. In the night, Edwardluk, who was not an Eskimo, rose on the ice, shouting with expectant joy, Edwardluk's arms reaching toward the Arctic Stars, ice-bright galaxies where man could never go. "Grandfather!"

As Dr. West spoke into the microphone, his plans vanished, and his voice poured out with unthinking freedom.

"— the darkness, the light from the sky, I am white bear, your Grandfather in front of you, all around you, above you, I am your Grandfather of whom you dream. Like a white bear from the sky, you see me coming for you. In joy your heartbeats are rising to the sky so that all become one with me.

I in you, and you in me. We rise! We rise!"

On the telescreen the images of the Esks swayed forward toward his voice.

"You have filled the world for me, and now I have come for you and we become one again," Dr. West's hoarse voice paraphrased the myth. "In joy we become one!"

Esk faces were shrieking upward with joy or agony. Esks were rising on tip toe. It seemed as if the hair of an Esk man was standing on end. He fell down, convulsing like a man being electrocuted, and became motionless, concealed by the pressing multitude. As if unaware of his fall, the other adults were straining forward sobbing with joy, and a woman fell among the shrieking, scampering, wide-eyed children who had been forgotten and were being trampled.

"Grandfather, we have prepared this world for you. Grandfather! Grandfather!" He saw another man's face ripen in an agony of joy, and his hair was standing on end just before his body toppled. Beside him, a woman in joy had fallen, vanished. A slender man, barely matured, frantically was beating the walls with his hands, as if trying to climb. In the turmoil, children must be scream-

ing. In joy, a woman strained upward and fell. "Grandfather!"

Dr. West's face twisted with pain. He was crying.

Children were being trampled.

He switched off the microphone, which had transmitted his voice behind the black curtain to the loudspeaker. On the black curtain, the whiteness of the bear vanished as he pulled the switch that plunged the Audience Room into darkness. His trembling hand reached into the Master Heating Panel and turned down the thermostat controlling Audience Room. He directed the icy blast of air conditioning into the Audience Room.

He stood in the corridor watching crying children flee the cold wind from the Audience Room.

A few adults staggered out with faces waxy as corpses. They shuffled away along the corridor. A moaning mother carried her little girl who had been trampled.

In the Audience Room, his flashlight beam flittered like a white moth over slack faces of ten adult Esks. He knelt, feeling for the pulse. This Esk was dead. "God help us all."

Tomorrow he would guide the Esks to remove the bodies. His eyes narrowed as he went out into the light of the corridor.

He was afraid to drag away the bodies himself because the Esks would see this. They might see a casual connection between the dead Esks and him.

I did not murder them. They wanted to go. They were hoping to go. Dr. West rationalized. *They behaved as if going was the purpose of their lives.* "They were shouting with happiness."

And I should feel relief, Dr. West thought. *I can control their numbers now. It may be possible to reach the surface if we try.*

Dr. West collapsed face down on his bed, groaning. It was many hours before he regained the self-control and purpose to get out of bed, to send the Esks back to the tunnel. But he found they were already digging.

Much faster and more purposefully than before, the surviving adult Esks were digging upward and carrying away blue-gray rock. They were smiling.

"Smile at what? At what is happening up there, years above our heads?" Dr. West was not smiling. "Dig faster!"

Broken blue rock rumbled out of the steep tunnel.

"We are rising through a pond," Dr. West announced as if the loudness of his voice could make the stupidly smiling Esks understand. "You are digging

upward through blue silt which has become stone. Yes, giggle. Do you realize how many million years we are buried beneath the surface? Dig!"

He blinked at a chalky whiteness of a tooth too huge to be mammalian. "My god, how deep are we? We'll never get out."

A clumsy Esk dropped another slab and giggled. Beside his foot it had split, and in this flat-faced stone there curved like a tiny white necklace a pattern of small teeth in a lower jaw.

"Specialized teeth. Extremely specialized for a little reptile." He bent over this fossil as if searching for a key to its time. Within Dr. West's eyes, the pupils like dark mushroom extensions of his brain enlarged with excitement. He was remembering himself as a sleepy pre-med student, a zoology lecture and diagrams so long ago. "The dental formula of this little creature in my hand — " *Incisors 3/3, Canines 1/1, Premolars 4/4, Molars 3/3. A little shrewlike animal?* "Beautiful! We're going to escape from these damn dinosaurs."

He laughed too loudly. "Dig. Already, I think, we're up in the Late Cretaceous. We're burrowing up into the Paleocene, up toward the Eocene. We may be less than 80 million years from the surface," he said with irony.

"We're clawing at the bottom of the Age of Mammals."

"It means nothing to you because you were not born of this planet," he told the patiently smiling faces of the Eks. "But to me! Do you know," he laughed, "we're already entering the top layer of my planet's cake. We're already standing on top of 4 billion years of life struggling up from the hot rocks of this planet. It's my planet, not yours."

"Eh?"

"Smile. Dig! We'll reach the surface and find out whose planet it is." Dr. West stalked off toward the Control Room because he needed to talk to a human being.

"I found mammalian teeth!" Dr. West's lonely voice rose with boyish excitement. "We'll get out of here. Digging up through — life," he laughed, "from the bottom up — "

Mao III appeared dead.

Tapeworm, kill me, fiend, please free me, Mao III's thoughts screamed soundlessly into Dr. West's brain. *Have you no humane conception of euthanasia? Press the pillow against my face. So simple. Lean on it. Please.*

But Dr. West walked away from the agony of paralysis, his fingernails gouging his palms. *I should kill him.* He knew he was

vacillating within neurotic indecisiveness. He passed the Esk servant approaching to pour water into Mao III's throat tubes as if tending a vegetable.

"When he dies, I'll be alone for four or five years." Dr. West walked in sweat. "Alone with more Esks every day unless I —"

Dr. West procrastinated.

New and beautiful little girls and boys scampered in the corridor, laughing and playing in their world. Stream-bed gravel rattled out of the long 45-degree tunnel for them to play with, followed by a thud of mineralized bone.

"Yes, giggle. Heavy rock for little girl. But I see an Oligocene beast with bones like small tuskless elephant. Perhaps you have a right to laugh. Perhaps this bone you are playing with is only an evolutionary dead-end."

He knew he had to kill more of these people.

When he opened his eyes, Dr. West stared at a fanlike spread of smaller bones in a water-smoothed boulder. "Fragile as a little hand. 'Dammit!' He felt anger at the prehistoric stream bed for eroding strata, treacherously restacking fossils and disordering time. "Protosimian fingers. But where are we? Up

to Miocene? No. I feel as though we're still buried at least 60 million years beneath the surface."

Dr. West procrastinated, slept poorly as he chilled the vault preparatory to luring the Esks back to the Audience Room where the white bear waited. He faced the day with the horror and fascination of an executioner, a torero, a bomber pilot. As he watched on the telescreen the closed-circuit transmission of the Esks jamming into the Audience Room, he felt nauseated. His face twisted in a sour smile. "Either I'm burdened with abnormal guilt feelings, or —"

His fingers played with the microphone switch. *If I don't do this* — He thought of ancient military men stationed at Buchenwald and other airfields throughout the world. *Was it delighted horror which squirmed within their armor of pride in professional skill and devotion to duty?* "It is justified because there is not enough food. I must do it as quickly and painlessly as my skill will allow. They would all die anyway — some day."

"Look at me, coming down to you —"

Afterward he showed the surviving adults how to stack the bodies neatly in the freezing chamber which once had con-

tained food. He tried to give first aid to children who had been crushed in the ecstatic stampede. He tried to comfort children whose mothers now were refrigerated. And he shoved a surviving male up the tunnel to dig. In loneliness he walked back to the familiar hatred of Mao III.

Dr. West laughed thinly. "The Esks say those who have died have risen into happiness."

Tapeworm, you fear to kill me. It cannot be simply because I desire death that you refuse to release me. You are not that cruel? Mao III lay totally paralyzed, begging.

But the tube Dr. West had taped in the corner of Mao III's mouth implacably seeped liquid nourishment into Mao III's stomach.

Tapeworm, when your host dies do you fear everything dies? When I die, you die! I die: the Universe dies. You, you billions of tapeworms who exist only in my consciousness, of course you try to keep me alive. You fear without me —

"Taunting me won't make me kill you," Dr. West muttered.

But I need to die. Torturer! Let me die.

His face twisting with sympathetic pain, Dr. West walked away in a closing circle of lone-

liness like a clear ice cave.

He suspected at least three years stretched ahead before the Esk tunnel possibly could reach the surface. *I'll lose control of myself before then, alone with my victims, smiling Esks*, Dr. West thought. *God help me, and up above, on the surface of the Earth, billions of smiling crowding faceless Esks!*

Dr. West walked into the bathroom and stared at the razor blade. *I'll leave now*. The razor blade gleamed between his fingertips.

"You sick coward, you'd never find out what happens!" Dr. West threw the razor blade into the wash basin. He glimpsed his wry, thin face turning in the mirror as he walked out of the bathroom. He walked back toward the cruel little prison which was Mao III's body.

And on past it away from Mao III, he hurried into the corridor where smiling Esk children scampered away and the handful of breeding adults carried sand and rock from the tunnel to the supply room where more heaps of sand replaced sacks of rice each day.

"Dig faster!" he shouted uselessly up the thin tunnel which had only elbow room for one Esk to dig at a time, and a rattling of descending rocks rolled down at him.

"Miocene dust, a local dry period, you stupidly smiling geologists. Yes, smile at the brown ridge on this rock. Smile stupidly because the little animal whose straight femur this was, who crept down to drink, may have been my ancestor. He sure as hell wasn't yours!"

Brown stone from hardened grasslands, then darker stone formed in temperate forests slid down the tunnel each day, gradually reddening to rain-leached laterite stone typical of rain forests. "The rainy sweep of the cycle, and now blue swampy clay."

In a discharge of blue slabs from the tunnel tumbled a massive thud, a giant's bone, followed by an odd-shaped white — "A flat tooth as big as a spade. A shovel-jawed mastodon. Pliocene? Only 30 million years from the surface."

"Dig!" Dr. West laughed like a crazy man. "Dig, you smiling fools, at this rate only two more years to go. Your children will see the sun."

You won't. Dr. West thought, staring at the bent back of an Esk woman sweeping little rocks into a frying pan. He glanced toward the supply room. Always too many mouths were being born again. He counted sacks of rice. *Again the white bear. Grandfather Bear, if you are up*

there in the sky, accept these, your children.

"But what am I?" He knew now he had the strength to reach the surface. "But is my world still there?"

Dr. West walked to the Control room to turn down the thermostats. With extra blankets, he bent over the withered remnant of Mao III. The paralyzed man's trapped thoughts frantically raced and squirmed like agonized white rats.

Dr. West stood in the screaming wind of Mao III's incoherent thoughts. A dagger appeared, as if a mind could stab itself to death with a visualized dagger. Now the dagger struck out at Dr. West, and he felt a sharp stinging as if the beginning of a tiny stroke spreading within his own brain. He bowed his head in the rain of Mao III's inner sobbing.

Tapeworm, my friend, my last contact with life, please kill me.

Dr. West's hand lay gently on Mao III's throat, and his thumb and forefinger closed on the twin faint pulsations of the carotid arteries. He felt gratitude like sparks of laughter from Mao III.

Pressing in, his forefinger and opposed thumb narrowed the flow from heart to brain until the last vivid picture — armies

of Chinese children with white balloons marching along the pink walls of the Great Square turned gray in Mao III's blood-starving brain. Dr. West glimpsed a single huge gray — What was it? A loud squawling seemed to emerge from within himself, and he realized he was seeing upward through the eyes of a baby instinctively loudly commanding food, warmth, love. A huge gray hand was descending.

Into his crib? Dr. West couldn't see. There was nothing. He opened his eyes at the waxen face of Mao III. Beneath Dr. West's fingertips there was no pulse in the throat arteries. From Mao III's brain, his own parasitic brain no longer could feel organized electrical activity. In fifteen minutes Dr. West confirmed irreversible clinical death.

He did not freeze Mao III's body. Somberly, he buried it under Pliocene sand in the supply room, and smiling Esks emptied soup pans full of broken rock from the tunnel face on to that growing pile of debris, and smiled and smiled.

"I'm alone with you now. I just hope that others of me are still alive on the surface."

"Eh?"

"So you don't understand. You see this sliver of bone on my hand — from the rock. Wolf, hyena, baboon or undiscovered

anthropoid, who ran on the ground upright — I don't know. All I know, this fossilized bone and I are more closely related than you and I. The ancient imprints in my cells have been continuously reshaped by this Earth for 4 billion years. You — your ancestors have been part of this world less than fifty years. I belong here. Your progenitor invaded. I think you were sent here for a purpose. Now you are digging upward. But where are you going?"

"Eh?"

Dr. West talked to the Esks a great deal now. It was another form of talking to himself. Warmed by fermented rice wine, Dr. West liked to shout at the ceiling. "Up there in the sky, come down here to hell, Grandfather Bear."

But one day it was the Esks, who were staring at the ceiling; and they were smiling, laughing, and running about in confusion. Shouting with joy, some of the adults scrambled into the tunnel, struggling upward.

"No! No! You'll smother the man digging. We're still a thousand feet below the surface." Dr. West kept trying to pull them back, but they wriggled free, stronger and so much younger than he.

Those who couldn't force their

way into the tunnel ran against the walls, climbed on chairs. As the excitement grew, shouting Esks tried to climb the walls while their children whimpered uncomprehendingly. In mounting desperation, an Esk man stretched his arms toward the ceiling: "Wait. Wait for me, please."

Dr. West grabbed an Esk woman. "Dammit, what's happening?"

"Eh? Let me go, please. All becoming one." Her excited laughter gradually muted to frustrated sobs, and some of the Esks sagged down on the corridor floor. They seemed so strange without smiles.

Esks slept in exhaustion where they lay, and their nonplussed children scampered around them whining and playing. It was Dr. West who had to drag the smothered bodies out of the tunnel. It was Dr. West who boiled the great tub of rice for the children, while the surviving adults sat stunned with disappointment.

Lethargic, they had to be loudly ordered to work in the tunnel. *It seems strange to see Esks who do not smile. They droop as if they no longer have a purpose in life.*

They cannot know what has happened at the surface, Dr. West thought. But their organisms knew something was hap-

pening, and now it has stopped. "You, there, hurry up, carry that sand to the supply room. We'll never reach the surface unless everyone works the way you used to."

Something had happened up there. Down here the Esks ceased to mate. The last babies emerged too soon, as if cast out, spontaneous abortions, dead.

Dr. West resorted to shouts and shoves to make the Esks dig.

"Dammit, why have you lost your purpose in life?"

"Eh?"

Now the swarm of older children were better diggers than their parents, and the tunnel proceeded under Dr. West's constant direction. Their lives required so much more guidance and reassurance now from Dr. West, he began to feel like the father.

"Dig! That's the way. We're nearer the surface every day." Pleistocene gravel less than a million years old was rattling out of the tunnel. "Dig my children, and we'll see the Earth."

X

Sometimes Dr. West dreamed the surface was green with willow trees along a silvery brook, and from his childhood he poked sticks deep into the water which bent them. He dipped his

face in the cool water and raised his head. Behind him the surface of the Earth was barren and dry, all life obliterated.

"Which is it?" He awoke, and when he slept again the cities hummed with life as if he'd never been away, and the humming grew and spread shoulder packed against shoulder in a solid mass of Esks spreading through the streets. Where were his parents? The surface of the Earth turned black with bobbing heads of Esks, and the humming rose while their heads drooped, and the Esks died in sagging masses melting into a golden honey, gleaming and flowing between the buildings and down the valleys. Like golden honey it covered the Earth, and he moaned as the humming grew louder coming down from the sky, and Dr. West tried to look up.

He blundered into the corridor toward the chattering voices of the Esks. They were carrying black clods from the mouth of the tunnel. He awakened fully. It was hard dirt, almost rock, flecked with bone, yet blackened as if by an ancient campfire.

His fingers picked out a glint of sharpness. "Flake of flint. Dig, my children! We've reached the age of Man!"

He laughed. "Peking Man? True man? Who knows what man? Ancestor, we've passed

you." He poked at slender humanoid femurs split for their marrow. "You Paleolithic cannibals! We're trying to pass you. By stepping on your heads, we'll get out."

Day after day the dark rock became lighter colored, more sandy.

Out of the tunnel bumped chunks of compacted loess dust. "The climate has dried. Cold dusty winds from the advancing arctic may have driven man away from this place. Is the ice approaching?"

But the next day, in a crumbling yellow cloud, which had been loess dust, gleamed a beautiful leaf-shaped javelin head with delicately pressure-flaked edges. "Sharp as the day you made it. And this sharp splinter, was it an awl? We're up among the real men now, who outsmart the cold, perhaps in intricately sewn wild reindeer skins."

Dr. West stared up the tunnel hole. "Am I the first amateur archeologist to make his dig from the bottom up? Dig!" he laughed, excitedly. "We are the first to have this perspective, a proctologist's view of civilization."

As the tunnel extended upward, shards of fire-burned pottery rattled down out of the hole. "We must be up into the Neolithic. Pots are used to store

grain. Deliberate farmers must have produced a more assured food supply, and the rules of Malthusian starvation have eased. For the first time the population is increasing rapidly, faster and faster. Dig!"

When Dr. West with his flashlight wormed his way up the slanting tunnel, wheezing through dust, slipping on loose rocks, squirming past Esk children who had been sent up to clear bottlenecks in debris slides, struggling upward for almost a mile through hot dusty air which made him gasp, his chest tightening with warning heart pains, he finally reached the buttocks of the Esk who was digging.

"Move aside. Let me look." Dr. West raised his flashlight to sun-dried yellow bricks. "Foundations. Must have been a permanent village."

But the bricks above were fire-blackened. When the Esk jabbed the crowbar up among them, crumbling bricks roared down, releasing a fall of compacted chunks of kitchen-midden against Dr. West.

"This green lump contains part of a skull. Buried down in the trash of his ancestors. The green oxide was copper, a helmet or a crown. Already we're digging up through the graves of men more sophisticated than Eskimos."

The crowbar clanged upward against masses of harder brick. "A village built upon a village."

Bricks thudded down, and Dr. West swept them between his legs, centered them rumbling down the tunnel. "More blackened brick and charcoaled wooden beams. This village had been raided, burned."

A clod of fire-darkened soil contained a triangular stain of rust. "The killers came with iron arrow points. We must be within 5,000 years of the surface. Dig! We're only a heartbeat from the surface of man's long evolutionary climb."

A clod slashed his palm. It contained white shards sharp as glass. "We've broken into recorded history. Perhaps your head and shoulders are in 1,100 B.C. among the descendants of the semimythical Yellow Emperor. Yes, armed with civilization these ethnic Chinese have moved northward. They built fortifications on the future site of Peking."

The crowbar was dislodging masses of crumbling brick into the hole. "They rarely built with stone. After the roof beams burn, the protective tiles fall. Chinese castles dissolve in the rain," he laughed. "But in 300 B.C. the King of Yen began the Great Wall."

A charred beam slid into the hole. "North China was overwhelmed by the Hu tribes. In distant Europe were they called the Huns? Already we are past the time of Christ. Dig! Before we reach 650 A.D. the Grand Canal will reach Peking. The population is multiplying rapidly now. Dig!"

In the falling debris lay a green, gourd-shaped vase unbroken, its surface appearing spider-web cracked. Dr. West gently extricated it. "Already we must have reached the 1,100's A.D. because this is a *kuan* vase, and the crackle-lines in the porcelain are intentional."

The crowbar smashed upward, and burned wreckage fell down. "Genghis Khan has taken Peking."

Blue and white porcelain shards fell like rain. "Already we are through the Mongols, and you are poking your crowbar into the Ming Dynasty. We are less than 500 years from the surface."

Stand streamed down from a rodent's tunnel. Above them glowed a little round hole like a luminous eye. "It is daylight up there!"

Gently, Dr. West laid his hand on the shoulder of the Esk and took the crowbar from him. "I am your leader, your Angakok, your Mao, and only

I have the power to break through to the present. Close your eyes. The future is blinding."

Dr. West thrust the crowbar up through the worn brick paving of the Manchus, shouldered aside the thin new bricks of the Communists and lifted his head into the dazzling sunlight.

The long pink walls within the Imperial City glowed with sunlight. The vast paved square lay golden with dust. Covered with motionless ripples of loess dust, the Great Square where millions had paraded before Mao's platform was shrouded with Gobi dust.

A distant chopping sound made Dr. West turn his head uncertainly, his ears confused by the echoes. His low angle of vision, with only his head above the wide-spread pavement of the enormous square, made the pink walls seem to lean inward. Arches appeared too close or too distant. Empty brown flower beds along the walls seemed tilted like brown stripes, as Dr. West blinked in the strange perspective of the Great Square and arches as if his head had risen in a Daliesque painting. His nervous gaze sought the sound. Chunk-echo! Chunk-echo!

So close he had not noticed

in the foreground glowed clean white rib cages in the golden dust. In waves of dust floated smooth white ovals. He stared at the shadowed eye-holes of the skulls. *Esk*s or *men*?

Thousands of skeletons lay all around him no matter which way he turned his head. The perspective made it appear to him as if they lay in concentric circles, as if fallen from a dance pattern. He blinked his eyes. Close to his hand a skeletal hand overlapped another's hand as if — *Esk*s or *men*?

Dr. West struggled up out of the hole and whirled, peering down at the smiling *Esk*s in its darkness. "Stay back! The sun will kill you," he lied. "My command is wait. Send down this word." Already he could hear his other *Esk*s chattering in the tunnel. "Until darkness, wait."

He stared at a fallen signboard. The withered paint still extolled Mao III's last Three Anti Campaigns: *Anti-Imperialist*, *Anti-Revisionist*, *Anti-Intellectual*. He dragged the flimsy signboard over the hole.

From the effort of dragging the signboard, Dr. West swayed like an old man, his heart pounding.

Chunk-echo! Chunk-echo. Turning, scanning for the chopping sound in the burning sun-

light, he dizzied, the pink walls flowing past. He stopped.

On the distant pink wall, the dark shape, the shadow of the shape, bent up and down. Chunk-echo! Chunk-echo.

His throat clutching his soundless shout, Dr. West ran forward. Across golden ripples of dust, he ran toward the pink wall. He saw on the brown strip of the bare flower bed, shadowed upon the pink wall, up and down, the dark figure wielding a hoe.

Man or *Esk*?

Startled, whirling, cornered, the squat figure raised its hoe like a weapon.

It is a man. Dr. West thought as joy blurred his eyes.

He felt his face stretching. Smiling senselessly as an *Esk*, Dr. West staggered toward the man.

The ragged man backed against the pink wall. The sunlight glinted on his hoe's blade.

"We both are men," Dr. West blurted in Chinese.

The old man shifted his weight. On the chopped dirt, with his foot, he was trying to conceal something behind his incongruous blue tennis shoe. Dr. West extended his open hand, and the old man's eyes slitted in fright, his elbows rising, the gleaming snake's head of his

hoe ready and poised to strike.

"It is true I am an American." Dr. West spread his open hands in a gesture of peace. "A whiteman, but you and I — not Esks. We are men."

The old man's forehead creased vertically as if squeezed by conflicting beliefs. "These seeds are not to be eaten. They are for — seeds."

"May your crop be . . ." Dr. West fumbled into his pocket and handed the old man whatever he found there, " — be fortunate."

Hesitantly the gnarled hand closed on the pencil stub. Dipping his head, the old man abruptly lowered his hoe and squatted down. From a grease-stained knotted rag he extricated a leathery strip. Twisting it apart, he proffered the larger part to Dr. West.

Solemnly the old man chewed.

Dr. West chewed the hard-smoked meat, salty as tears. "Where are — the people?" Dr. West's eyes burned.

"Working." The old man seemed surprised that the question had been asked. "Outside the walls the dirt has more dampness for crops." His hand fingered the dry soil of what had been a flower bed in the Great Square. "But my wall keeps out the wind. My knees ache. Before the electricity

stopped, I was a subway conductor, not a — "

"Whose skeletons?" Dr. West interrupted.

The old man's eyes closed, wrinkling, and his forehead wrinkled as if he had begun pondering a deeper question. "You say you are an American. I never truly believed that the Americans sent the plague. Our bodies, the stench in the subway — None of the Smiling People were sick. They cared for us as best they could."

"Then these are the skeletons of men?" Dr. West's heart contracted.

"No, Esks, of course!" The old man's face showed surprise at Dr. West's ignorance.

"The Esks are dead everywhere?"

"I do not think they are truly dead. They joined hands." The old man glanced at the sky. "The flesh has been gone from their bones for a season."

Dr. West covertly expectorated the salty meat into his palm and stared at the old man's leathery face.

"Who can say who is dead. In this little world . . ." The old man ruminated his salted meat solemnly " . . . little can be understood. Circles like dancers. Many little circles joined together like a net. But they did not dance."

"All the skeletons are in this square?"

"I think, everywhere in Peking, and in other places, all over the world I am told. They did not dance, although they were smiling like bridegrooms and brides at the sky." The old man squinted upward.

Dr. West blinked from the skeletons of the Esks to the blinding sky. "What did you see — up there?"

"See? We old men know only the body dies. When men are hungry enough, meat can be salted, and it makes no difference to the soul. A poor man like myself understands only how to survive on this Earth."

"What did you see?" Dr. West repeated, his voice rising.

"They are all around us, I think." The old man turned his weathered face. "Years ago when there were not so many, we called them the Smiling People. We called them the Dream People. Perhaps they were smiling because they were in a dream, and they knew what was going to happen. Your face is angry."

"I'm not angry. I want to know!" Dr. West's chest pain was tightening.

"Nor I." The old man muttered, closing his gnarled knuckles around the handle of his hoe. "After the confusion from lack of rations, some of us kill-

ed Dream People. Not enough. Pulling out a few hairs does not kill the head."

"What did you see!"

"It is too difficult to explain." The old man glanced sideways toward the pink arch. "Some day someone will repair the electricity. The subway cars will move. I will receive my ration tickets because I was — am not a peasant! In my subway car — " The old man stared past Dr. West's shoulder toward the center of the Great Square.

With a hissing exhalation of rage or fear, the old man raised his hoe and scurried out across the dust, running like a fat spider across the golden ripples of the square toward the dark spots emerging out of the pavement.

"Oh god, they're coming out of the tunnel." Dr. West watched his distant Esks wandering out into the glaring sunlight.

As the old man's diminishing silhouette reached them, his hoe's blade flashed high and struck. One small figure staggered, clutching its shoulder. The old man struck again with the hoe, and another figure slumped to its knees. Somehow he appeared entangled among them, but with his hoe he struck down, and his back heaved up, but his hoe did

not rise. The old man's small figure lurched away.

Empty handed, the old man ran toward Dr. West, his face contorted. "More. Again! Returned." His breath hissing, he ran past Dr. West through the pink arch out of the square.

Dr. West knew the old man had run for help, for other men to help slaughter his Eks. The old man could not know how many Eks were spreading out of the tunnel. *The consequences—*

Dr. West's heart-pain clutched. He stared at his Eks emerging like lost children into the Great Square. Dr. West started toward them.

"Go back!" he shouted. "Go back to the hole."

He tried to herd the spreading Eks back to the tunnel.

You are too late, he thought sadly at them. *Your purpose*. "Go back!" he shouted in sudden anger. *You have destroyed my life*, he thought as he pushed helplessly at them. *Without malice, you have multiplied. All over the world your presence has hastened the Malthusian forms of death for Man. All my adult life, you have confronted me with my inability to halt either your purpose or lack of purpose*. He was past anger. "Please go back."

His Eks were smiling at the empty sky. Their hands were

linking. On all sides of Dr. West, they were forming little circles of Eks touching other little circles throughout the Great Square. They stood waiting.

"You are too late. Go back." Dr. West glanced from the dark tunnel to the pink arch through which savage men would come.

The wind moved. The dry air crackled. Dr. West thought he heard a humming sound. It was coming from them.

"My god!"

XI

All around Dr. West, the Eks, their hair standing on end. They were smiling upward as the whip-crash of lightning blinded Dr. West. The lightning rose from them. His retinas and the visual part of his brain retained the lightning flashing upward in a static electric discharge as he lurched in the deafening boom of colliding air molecules refilling the gulf. In the prickly scent of ozone, on his knees he groped, his hand closing on the soft back, the still-warm shoulder of an Esk woman as delicately boned as Marthalik had been so many years ago, and Dr. West cried out. His sight was returning, but he was afraid to look upward.

All around him lay the fallen bodies of the Eks in their

dance patterns. He thought he heard the humming sound above his head. Crouched in the dust, instinctively he clung to the Earth. His eyes closed tightly as fists. In tightening pain his heart labored.

Because he had almost seen the end, he thought he understood the beginning. Fifty years ago the huge shell had fallen down through the polar inbending of the Earth's magnetic lines of force, down through the weak inturning in the Earth's ionospheric radiation belts, smashing down on the Boothia Peninsula near the North Magnetic Pole. *Oh god, why couldn't it have fallen on the lifeless South Magnetic Pole?*

Are your eggs waiting at random through the Universe?

He was afraid to look up as the humming grew inside his skull. His evasive mind fled backward. *Fifty years ago a young Eskimo stared at the Burned Place, Dr. West thought frantically. Peterluk, yes, with his grimy finger he would have poked whatever lay within the inner shell. He stood too close to —*

Sharp heart pains reflected from Dr. West's chest down the inside of his left arm. Momentarily his thoughts blurred as if something overlapped his brain. *From the nucleus of the shell*

did a repatterning flow through Peterluk to his gonads? Yes, you altered his genetic material for your purpose.

Dr. West's face twisted in a tired smile as his thoughts fled backward in time. Peterluk's fanciful explanation of the first Esk emerging as a fully grown baby-man from the splitting hump of a dying monster had been an inexplicable lie. His wife Eevvaalik's explanation that the first Esk born was a month after a huge glass hypodermic repeatedly violated her, in artificial insemination, was only half a lie.

Yes, lustful Peterluk carried your purpose to Eevvaalik's uterus, Dr. West thought, where it grew more efficiently than the babies of our purpose. Your Esks had the advantage of a one-month gestation period and more rapid maturation for each generation until your purpose almost covered my Earth.

His hand pressing his chest, his momentarily easing pain, Dr. West smiled. *Those unsophisticated Esks believed you were coming down for them. For them you become the true myth of power like a huge white Grandfather Polar Bear coming down.*

But I know your pattern already was in them. Adaptability! Smiling, smiling, your Esks instinctively behaved in a non-

violent manner. Non-violence enabled their maximum survival and multiplication in the peculiar environment of this particular planet at this time. But your time-fuse was burning in them. Cued, your Esks joined hands in billions. In vast dance patterns for — who?

Dr. West wanted to look up. *Joining hands, he thought, Esks looking upward. Upward toward your purpose, your purpose—*

Dr. West looked up at the sky. Dazzling blue, the sky was visually empty, but Dr. West was seeing sparkling representational patterns impressed directly in his brain. With his eyes there was nothing up there with sufficient molecular density to be seen. But in the visual portion of his brain he was being communicated with —

He understood. He was being shown a diagrammatic pattern in a brain, flowing thoughts, circling memories. Transmitting neuron cells were represented as strings of sparkling dots. Electric potentials within cells discharged in sequence, symbolic dots blinking in succession like the falling of dominoes, symbolizing the flow of conscious thought. The essence of life.

All around Dr. West in the Great Square the Esks lay dead. The vital electric flowings which

had been their essence, their consciousness, the sum of their memories and experience had stopped — forever? Dr. West felt his chest tightening.

From his memory the symbol for a single electron appeared. Surprisingly, it was trailed by an unknown symbol, a smaller dot. Like a graviton symbol but not graviton, it followed its electron as if it were a red balloon being pulled along a neuron path by an erratic electron-child. Everywhere the little unknown symbols were being towed in the brain's flowing electrical patterns. They had always been there — in every living brain.

Dr. West cried out from the pain in his chest. He felt that abstract brain dying. He saw the vital differences in electron potentials of neurons leaking across like water until level and in stasis. Unconsciousness. No electron flow. If there had been an electroencephalographic machine available, it would have graphed this brain as clinically dead.

But the diagrammatic skeleton of what had been the brain's essence still was outlined in intricate, motionless patterns held by the unknown dot-symbols. No longer flowing, these unknown symbols suddenly rose in unison. They had been thrust

free from the energy bonds of their neutralizing electrons. With artistic freedom, each rising dot was marked with a tiny plus sign, symbolizing a small positive charge.

From the center of the Earth, against each unknown dot was thrust a gravity symbol, a graviton also wearing an arbitrary plus sign. *Like charges repel*, Dr. West thought wryly, intense pain returning to his chest.

As in a demonstration of static electric force, which this was not, the positively marked gravitons from the Earth, as surely as friction-charged black rubber combs, repelled the positively charged dot-symbols upward. Out of the brain, perhaps of a dead Esk, rose the whole intricate pattern of consciousness and memory still outlined in the unknown dot-symbols. Dr. West was shown the individual pattern spreading as its massless dot-symbols skipped upward upon their temporary molecular perches in the air, spreading up among the thinning molecules of the atmosphere.

In the thinning air of the stratosphere, the unknown dot-symbols still maintained the shape of the man's mentality although the diameter of the brain pattern had expanded to hundreds of yards in order to find enough temporary molecu-

lar attachments for all of its dots. Still repelled outward by the diminishing force of gravity from the Earth, the Esk's brain pattern was spreading over the sparse molecules in the near-vacuum beyond the Moon. Now the brain pattern was being driven out of the solar system by the gravitational force from the sun, out into the hard vacuum between the stars where each Esks mind pattern was expanding larger than a planet.

"Are they still alive?" Dr. West cried aloud. "Are they conscious?"

In his chest, in his mind he was given the feeling of pressure of billions of Esks' patterns like invisible balloons packed together by their individual expansions. Still surrounding the Earth and the solar system, they were pressing outward in every direction into the blackness of space. Toward the gravitationless void between two distant stars the outermost patterns were expanding toward — shuddering, Dr. West's heart hammered with excitement — toward an immense waiting extrusion from another group-pattern stretching in vast light-years across the galaxy.

Already, hours, days, weeks, months ago, after the other Esks had died on every continent of

the Earth, the edge of the Esks' group pattern must have reached this greater group; and Dr. West understood from whence his mind-pictures had been transmitted.

His awareness was lifted through the blackness and dazzle of space. As if overwhelmed in a psychogenic journey, he soared outward toward the rim of the galaxy. Through myriad asteroids of shattered outer planets, he fell past mountainous space-rocks dotted with white domes. Like colossal barnacles, the lime-white domes extended green nets, but not to trap planktonic life in space. He saw those weightless green nets more widespread than football stadiums turning to trap the radiant energy from the yellow sun below.

He fell past the dotted asteroids, their rack-digesting, white domes expelling white eggs. With unfolding purple fringes, the huge organic-stone eggs drifted away from the pressure of the strange sun's light, their purple sails diminishing into the blackness. *Its fleshy fringe burned off*, he thought, *as it fell through our atmosphere.*

He was falling toward the third planet. The planet was brown and dead.

For him, the picturization spun backward in time, and the

planet became green and densely populated. Slender and with a seemingly infinite variety of specialized organs, nevertheless they were all of one species, capable of skilled psionic electron-adjustments of the genes of their unborn. He felt the frightened thoughts of a varied population rich in telepathic empathy. They had achieved gentle social control of themselves. But they had not achieved space flight. Their evolutionary climb was trapped on their single planet when the viral catastrophe exterminated them. All together they died. Their bodies had decomposed brown on their brown planet.

Their stylized brain patterns rose across Dr. West's inner vision, expanding out through their solar system past minimum gravity asteroids into the emptiness of space. His heart struggled with nervous expectation of a miracle, but then he saw that their patterns, like the patterns of the Esks, were rising in nonconscious death.

As in the brain patterns of the Esks, the only movement was the spreading apart of dot-symbols as each pattern expanded in space. Like the dead bones of skeletons, their dot-symbol patterns still retained the outlines of their neuron pathways — and did not flow. Dr.

West saw the dot-symbols did not change position relative to each other within a pattern. There was no dot circulation, no consciousness, no energy. Like the mental patterns of the Esks and of everything that had ever died, in their billions these patterns were expanding outward through the universe in eternal death.

But we are alive!

Dr. West felt their crowded patterns pressing against each other, each lacking internal circulation and consciousness. In their vast numbers they were receiving more and more pressure because the sum of their individual expansion rates was greater-faster than the expansion of the outer edges of their whole group. Out into space there must be a limiting velocity for the massless dot-symbols, perhaps related to the sparseness of molecular attachments.

Within the vast group, he felt individual patterns squeezing against one another in more and more vital contact. They vibrated wherever their outermost dot-symbols momentarily attached to the same molecules. But there was no overlapping of brain patterns, even though exterior pressure from the distant gravitational fields of other stars

was increasing as the outer edges of the group expanded closer to these gravity solar systems. By now, Dr. West knew the group must be many light-years in diameter, and it contained no consciousness.

The glowing dots of one symbolic brain pattern emblazoned on his brain. He saw that its unknown dot-symbols still did not flow as in a living brain. Yet he understood that the surrounding pressures had reached their absorption limit. Further pressure had nowhere to go but into energy. The energy was sublimated in motion of the dots within the individual patterns. Bead-strings of dots were beginning to flow. Along familiar pathways, which had been neurons in the living brain, moved the dots of consciousness. In the vacuum there was little resistance to their quanta-skip, and the dots moved faster and faster, energized by the temporary pressures. *We are alive!*

Dr. West's erratic heart struggled with excitement. Another massive pain cramped his blood-starving heart muscle. As if personally defeated, he saw incapable unconsciousness and death awaiting the expanding group in the infinite emptiness of space.

He understood their fatal problem. As they spread out

between the stars along the gulfs of least gravitational pressure, the group's expanding outer edges were relieving the vital pressure. Within the group, the life-giving pressure could only decline. The number in the group was finite. Space seemed infinite.

Their massless brain patterns could not reproduce themselves. Their own numbers could not increase, and their individual expansion rates were slowing toward their limits. Pressure-energy was lessening. Even though the brain patterns of recently dead creatures throughout the galaxy were being swept up and by inertia packing against the outside of the expanding group, the pressure within was declining. Within the individual patterns of thought, the dots moved more slowly. Death was returning.

XI

Now Dr. West understood the purposes of the Eks in the larger purpose. He understood the importance of dying in billions at one time.

Striving for immortality, the larger group could not reproduce themselves. Nor could they reach in and kill the life forms on a billion planets. Gravity kept them away.

In his mind, he was shown again an insensible white dome feeding on its rocky asteroid. In this minimum gravity the pressure within the group was greater than the weakly repelling graviton quanta projected from the asteroid. A mind pattern was able to overlap the fleshy nucleus in a dome. The widespread pattern concentrated a node of flowing dots within the leathery tube of reproduction in the dome. Symbolized dots attached themselves by their weak "balloon strings" to electrons within the genetic flesh-batteries within a forming lime-white egg within the dome.

In time, the egg was expelled as always into drifting space.

For Dr. West, time was shifted in his direction. Genetically altered eggs on lucky collision courses smashed against bare asteroids as they always had. New domes grew and emitted new eggs with unnatural haste. As always, eggs bumped in space, exchanging electrical imprints of their genetic material. In the past, purple-fringed eggs, sailing by light pressure through space, had steered away in negative reaction to gravitational fields of intensity. Their domes only would grow on airless asteroids of low gravity.

But now some genetically altered eggs steered toward gravi-

ty forces, toward stars and then away from these blazing suns when radiation stabbed with unbearable intensity through their fleshy nuclei.

Down toward a billion planets the aberrant eggs plunged, now attracted by gravity but at the last moment repelled by the radiation belts around gravity planets. Readjusting their sun-sails, deflected, they streaked on orbiting courses above the radiation belts held by the planets' magnetic lines of force.

Down through the weak funnel in Earth's radiation belts, down through the inward turning of the Earth's magnetic lines of force, the egg had plunged toward the North Magnetic Pole. Its fleshy sun-sail burning in the atmosphere, the egg smashed down on the Boothia Peninsula. With a puzzled smile, Dr. West watched Peterluk poking the fleshy nucleus with his finger.

There could be no pattern of unknown symbols waiting to invade Peterluk's genes. The Earth's gravitons would have driven them out while the egg was still above the ionosphere. Within the egg's altered nucleus of electrogenetic material, a generalized electron-pattern was waiting. Since the domes are stationary on their asteroids, it is only through their drifting eggs that genetic imprints are

exchanged with electric jolts.

He felt Peterluk's surprise and chagrin to find himself lying on his back on the cold rocks of the Burned Place. Frightened, Peterluk did not confess this unexplainably evil fainting weakness to Eevvaalik that night when he seized her in his arms. In the rhythmically gasping darkness, of the millions of his sperm the successful one to penetrate her ovum carried the altered chromosomes. These transmitted merely the generalized characteristics of adaptability, fetal growth efficiency, a one-month gestation period, an increasing maturation rate, more and more rapid multiplication — and an unlit fuse.

Future population pressure and other cues could ignite it. Joining hands in death, the Esks had fallen, their freed patterns ballooning into space. Too well, Dr. West understood the purpose for which the Esks had — died.

But they are alive! They are becoming alive! The great thoughts surged in Dr. West's brain. *We — they — every-*

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thing which has ever lived will come alive. When we have filled the Universe there will be eternal life.

Dr. West felt their hope and excitement as he lay in the golden dust of the Great Square, his contorted body gasping for breath. The massive pain from his heart so filled his chest that the pain seemed to be squeezing him out of himself.

The contribution of each life's pattern increases the vital pressure, the great thoughts urged. Life can be sustained for all beyond physical death. The feeling was sympathy. Excitement. Hope.

In his physical agony, he knew he should try to reach back his hand into his pocket for the bottle of nitro. It might not be too late to take a pill. His thoughts were dimming. He felt enveloping sympathy. Surrounding patterns of the Esks still were transmitting the

thoughts of those beyond to him — with sympathy. Why else would he have been communicated with in this last possible moment as the last expanding patterns of the Esks crowded upward from the Great Square in continuous contact across space —

Twisting on his side, his breathless body contracted in a fetal position, and he glimpsed the blue sky so beautiful. He laughed like a naked savage with wonder and awe, but soundlessly. He laughed as his heart's terminal fibrillations stagnated the flow of blood to his brain into visual darkness, and he did not take the pill.

Freed from life-long fear he laughed with amazement at the Universe of which he was a part.

His last human thoughts wandered above the bodies of the Esks in the Great Square. He imagined a sharply questioning voice in Chinese. Hard hands were attempting to lift his body. But his heart had stopped long ago.

The electrical flowing of his brain was completed. His upward expanding thoughts laughed with wonder and joy at the purpose of the Esks and those beyond. *Now all we need to know is OUR purpose in life.*

— HAYDEN HOWARD

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WITHIN THE CLOUD

by PIERS ANTHONY

*The clouds were lovely,
graceful and — dangerous!*

“**B**elieve me, this is not a joke,” the portly tourist said. He was careful to face the man as he spoke.

“We think you can help us, and my wife won’t give me any peace until— Anyway, all you have to do is look at a few seconds of film. Twenty dollars for your trouble, even if you can’t make anything of it.”

The man nodded. He led the way to an empty classroom and set up a projector and screen, while the woman waited anxiously.

The projector started and stopped. The man grunted and unscrewed the lamp, showing them that it had blown. He signaled them to remain and stepped into the hall.

“This is eerie,” the woman said. She was perhaps ten years younger than her husband, quite pretty,

but temperamental. “Who would have thought we’d wind up visiting a school for deaf-mutes on our vacation!”

“Well, you started it,” the tourist said. “You and that hyperactive imagination.”

“I started it!” she exclaimed indignantly.

“Don’t you remember? That afternoon on the beach. All I wanted was to get some tan on my back, but you kept chattering about clouds—”

“**I** like clouds,” she said. “They’re so free, and they take so many shapes. No one tells them what to do; no one grouches at them.” She nudged her husband playfully. “If I were a Confucian, I’d reincarnate as a cloud, and —”

“Buddhist.”

“Anyway, I’d be a cloud and

just float along without a care in the world, free free free free!"

"The Buddhists and Hindus believe in reincarnation," he said, "but I'm not sure a cloud was their idea of Nirvana."

"Free free free free!" she repeated. "Why are you always so serious? You have no sense of humor at all."

"You wouldn't appreciate my humor," he said.

"Now look at that cloud right over us. See—it's almost like a face, looking down at us." She nudged him.

He rolled over in the warm sand, squinting up.

"See," she repeated urgently. "Two ears at the sides, two sorrowful dark eyes, a long thunder-some nose —"

"—and a big, ugly, voluminous, gassy mouth," he agreed irritably. "Wide open."

"Half open."

"You talk more than you look. That's a perfect 'O'."

She studied the cloud more carefully. "Well, it was half open. If you'd looked when I told you the first time."

"Uh-huh." He squeezed her tanned knee comfortably and closed his eyes.

"Now it's shut again."

He rolled over, not looking. "Why don't you make up your —"

"No, really. It opened and

closed. I'm sure. Well, I think."

"Yep."

"Now it's opening again."

"Is it winking, too?"

"Now you're being —"

"A kind of cosmic Peeping Tom, staring down your bikini."

She shut up, hurt.

He reached out, but she slid out of reach. "Aw, now, I'm sorry. I said you wouldn't appreciate my — I'm sorry. Look, I'll go get my time-delay camera and make a series for you. Then there'll be no question."

She was magically within reach again. In a little while he lumbered up, shook off loose sand and headed for the car to fetch the camera.

The mute returned with a fresh bulb and set the film in motion. There were a few ordinary flashes of the beach and waves and the controversial bikini; then the series on the cloud. Focus and resolution were excellent; the tourist knew how to use his camera.

The sequence itself was brief. Fifteen minutes had been reduced to five seconds, but this too had been expertly handled. The cloud was revealed as an animated, expressive face, its mouth opening and closing in apparent speech. All that was missing was the sound.

"You see?" she said. "You see,

you see — that cloud was speaking to me! Maybe its a new form of life, like the Saucers —”

“UFO’s.”

“—or something. Maybe we just never knew where to look for it before.”

“A *cloud*? A common cumulus humilis!” They had obviously been over this many times.

“Maybe it’s an alien observer telling us the secrets of the universe!” She could not sit still.

“In faultless English with a slight Boston accent,” the tourist growled, but his wife missed the irony. He turned to the mute. “Here is your money. What did you make of it?”

The man looked at him steadily with an indefinable expression, then handed him the rewound film and a written note.

“This is what it said?” the tourist demanded, not looking at the paper. “You read the lips? You’re sure?”

The mute nodded once emphatically, then smiled briefly and stepped into the hall.

The girl snatched the paper and unfolded it with trembling hands. Then wrath overcame her prettiness. She crumpled the note, threw it down, and stalked out.

The tourist retrieved the paper, spread it out and read it at a glance. His belly shook and his cheeks puffed out with suppressed laughter.

“I *like* that alien!” he murmured. “I suppose our dialogue is pretty funny, from that elevation.” Then he too threw the paper aside and followed his wife, smiling.

“Free free free free!” he mimicked and choked over his mirth again.

The paper remained on the floor, its six printed words revealing more about clouds than the meteorologists would ever comprehend:

HELP! I AM BEING HELD PRISONER —

— PIER'S ANTHONY

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Galaxy Bookshelf

By Algis Budrys

There is no school of science fiction less in the public awareness today than the one formerly sustained in Chicago.

The Chicago magazines existed as an island apart from the plenitude of the East Coast, connected to the Main only by the most slender bridges, sustaining their own corpus of headliners, aspirants and friends of the management. Most of the local writers were people you never heard of, and most of them are better left that way. Essentially they have all left science fiction now, along with the entire collateral establishment of editors and illustrators except Virgil Finlay. Only the oldest and most widely separated segments of Chicago fandom still contain some people who not only share its memory but, more important, were in at the antediluvian watering of its roots.

It's all legends now, and a

yellowing mausoleum of mostly trash. This is no evocation of nostalgia; it's an illustration that there are, or there once were, other systematic ways of looking at this field. It was Carthage, it is gone, the law of Rome runs now without hindrance, but still the ruins poke up through the salt-sown earth.

Great Science Fiction Stories About Mars (Frederick Fell, \$3.95), is edited by T. E. Dikty, a man from Chicago. An old hand in town, he has been editor or co-editor of at least eighteen science-fiction anthologies. Beginning in 1949 and continuing through 1956 at least, he participated in or directed the editing of a series of annual "Best" collections which ultimately lost out when Judith Merrill came along.

This book contains the following stories: "The Sound of

Bugles," by Robert Moore Williams; "Nonstop to Mars," by Jack Williamson; A. E. Van Vogt's "The First Martians," Eando Binder's "Via Etherline," "Tin Lizzie," by Randall Garrett; "Under the Sand-Seas," by Oliver E. Saari and H. Beam Piper's "Omnilingual." It also has an introduction and a good table of physical comparisons between Earth and Mars.

Now you'll have noticed something, I think; it's not often that a man given an opportunity to put together a book of seven science-fiction stories will include Binder, Williams and Saari. A. E. Van Vogt has not been a top-line writer in the world's estimation for many years now. Jack Williamson's luster — again, we're talking about the public eye, and names that bookstore owners might conceivably recognize — is that of fine antique silver. H. Beam Piper was a very good workman but never developed a by-line that sold books. And Randall Garrett, a man of passionate personal involvement with the universe, long ago taught himself to write in a manner that would never betray this fact to the public.

This is not, in other words, a smart book. It seems to be, only, a book that Ted Dikty would have liked to read. Oddly

enough, I expect you will enjoy it too.

William's "The Sound of Bugles" is a pretty bad pulp story. But Jack Williamson's "Nonstop to Mars," while one hundred per cent ridiculous, swings. Published in 1937, it concerns a daredevil endurance flyer who flies his airplane to Mars along the whirlpool of air being sucked away from Earth by the inimical aliens. Once there, the hero takes about ten seconds to set the whole thing on fire, kill all the critters, and save the world. It is to laugh; nevertheless, it's a great and effective story. Although the relationship between the hero and the girl is modeled exactly on the poses struck by people in Frank R. Paul illustrations, the events in which they are involved, and the breathtaking rapidity with which they unfold in *logical* sequence, really do evoke a sense of wonder.

A. E. Van Vogt's "The First Martians" is surprisingly coherent and, as a 1951 story, may have been one of the first places where it was suggested that Andean Indians would make pretty good Martians.

"Via Earthline" is ostensibly a series of radio messages from the first Martian expedition back to Earth, written as if from a pile of flimsies on a copydesk

spike. It partakes of the romance inherent in any series of messages from a remote outpost. A bunch of people go and have a bunch of trouble, and the last message tells us some of them are dead, with the others very likely about to die. Because the radio link — pardon me, the etherline link — between Earth and Mars is attenuating, we will probably never know what happened. It's what I guess you have to call a tour de force, since it fits no definition for being a story. But, again, as with the Williamson — though nowhere near as much — the reader gets the feeling of involvement with these in fact nonexistent people in this arbitrary place.

"Under the Sand-Seas" is by a Midwest fan who, circa 1940, wrote and had published a fair number of stories without really attempting to make a career of writing. But Saari's influence on such writers as Frank M. Robinson, Wilson Tucker, and a number of others was rather great by their own testimony.

The story is a display of ideas, and though it may not have been intended as such, it's a series of nudges to the kind of mind that writes science fiction. You're going to have to excuse me from guessing how it will read to someone who simply reads the stuff for pleasure. He

may find, as he probably found in "The First Martians," that the most important idea in this 1940 story is old-hat. It got that way in 1946.

Finally we have "Tin Lizzie" and "Omnilingual," both of which treat Mars as the locale for a fascinating technical puzzle. In the one case, having to do with the chemistry of Garrett's postulated Mars, and in the other, with the Rosetta Stone inherent in the workings of any technological civilization. The Piper, in fact, probably represents a genuine contribution to the real world. I don't know that you really could begin a translation of an alien dead language by analyzing its notation of the periodic table, but it sounds like a perfectly valid proposition, and I think archeologists ought to keep this notation on file. Readers of this book, meanwhile, will find these last two stories solidly representative of the kind of package-unwrapping tale *Astounding* was always sure to publish. And almost as much about an arbitrary place, called "Mars," as the Binder story.

On the face of it, this looks like yet another in Frederick Fell's long series of mediocrities. You may be rather surprised at how much pleasure you get out of this mediocre book.

It seems to be a fact a man like Dikty, who knows his work, will turn out good work no matter what kind of work he does. Bleached-oak modern it ain't. But it's solid, it's well considered on its own terms and it may even last.

Earthmen and Strangers, edited by Robert Silverberg, (Duell, Sloan & Pearce, \$3.95) is a theme anthology, as you might guess, about contact between Earthmen and aliens.

The contents are comprised by "Dear Devil," by Eric Frank Russell, "The Best Policy," by Randall Garrett; Robert Silverberg's own "Allaree," Poul Anderson's "Life Cycle," "The Gentle Vultures," by Isaac Asimov; "Stranger Station," by Damon Knight, Algis Budrys' "Lower Than Angels," "Blind Lightning," by Harlan Ellison, and, finally, "Out of the Sun," by Arthur C. Clarke. There is also an introduction which seems to be addressed to people in their late teens or early twenties. It's a didactic book, showing us that science fiction teaches lessons and is concerned with social problems. By so showing us, it apparently endeavors to so teach its reader.

There isn't a top-grade story in this book, with the exception of "Dear Devil" and, possibly,

Knight's "Stranger Station." Most of them are pretty straightforward, reasonably competent stories. They share a tendency to get rather emotional at times, as distinguished from being emotion-provoking — which is harder. At least, I'd say that about my own story, and if I'd say it, who wouldn't?"

"Dear Devil" is one of Russell's rare serious stories. It's an unfortunate characteristic of the things that have happened to this writer that he rarely takes himself seriously anymore and thus substitutes the flip remark, and the anecdote, for the straitly-told story. But "Dear Devil" is about a Martian poet who strands himself on a devastated Earth so that he may empathize with the survivors of a nuclear disaster and a plague. Practically all these survivors are children. The Martian is blue, tentacular, not possessed of such human faculties as a voice or laughter. The children are uneducated, unsupervised, and overwhelmingly conscious that they have been born into a place that's hideously wrong. Both the Martian and the kids make it. It's a very good story. When I think of the many, many ways it could have gone wrong, it's a great story.

"The Best Policy" is Randall Garrett writing a story that be-

gins: "Thagobar Larnimusculus Verf, Borgax of Fenigwisnok, had a long name and an important title . . ." You run across something like that and you know it's going to be another story about an alien being which charges full tilt into conflict with an Earthman and will inevitably get its tentacles pinned back.

"Allaree" by Robert Silverberg is about the effect of a chance visit by Earthmen on a world inhabited by intelligent beings who happen to all be part of a single, pathically linked group entity. The Earthmen teach one of the segments of the identity to be an individual and take him away with them. The new individual likes the whole idea at first, but can't continue to live without sharing, so he dies. "Call it—*malnutrition*," the author says. Yes, and as far as it goes it's a meaningful statement.

"Life Cycle" is about some old tricky biology on Mercury, wrapped in the old plot about how the Earthmen will die if they don't solve this scientific puzzle. Solve it they do, live they do, and entertain the story probably does. But I worry that all over the galaxy, Earthman after Earthman is getting into trouble of one kind or another and having to decipher the en-

tire ecology of a planet before he can figure out how to get his foot out of the gum we found it planted in on Page One.

What I mean by this is I'm noticing the persistence of this school of sf writing, a hang-over from the days when most good science fiction was written almost exclusively for engineers and other technological types. Is part of Anderson trying to be the John Dickson Carr of sf? Is that bad? you ask. John Dickson Carr inspires my admiration as a technician and bores me stiff, I reply.

"The Gentle Vultures" is a story about aliens who are waiting for the nuclear war that will render Earth helpless. In the alien's long experiences, no civilization which discovers atomic bombs fails to have nuclear war, and their policy has been to never fail to move in and pick up the pieces while being as humane as possible to the native survivors. It is itself a gentle story, told by a gentle man, and it reflects the kind of mind that winces each time it encounters any one of the thousand affronts it inevitably notices in the course of any given day. But Asimov writes this story as if it sufficed to say: "Here it is, I have shown it to you." This is not quite enough. For the reader is

very liable to say: "True. Too true. Now what?"

"Stranger Station" by Damon Knight has all the things in it that Damon brings to his best stories. It has contact with the truly strange; in this case, an alien being who is overwhelmingly alien, met in loneliness by one introspective, lonely man. His intermediary in contacting the alien is a self-aware cybernetic device called the Alpha Network, and in successive layers you discover that "contact with the alien" consists of contact not only with the extraterrestrial being, and with the Alpha Network, but also with what goes on in the back of the human hero's mind. We are all strangers, to ourselves as well as to each other, and we journey from milepost to milepost, each time thinking we see our destination, each time discovering that we are merely touching the next base. Will we ever score? Well, that's the natural question, but for it this story has no answer.

Neither does "Lower Than Angels." That was always what bothered me about the story, and it continues to do so.

Harlan Ellison's "Blind Lightning" is, as usual, an unflagging assault by the author on the characters and the readers. However, there are times when what

Ellison has to say outweighs his unwillingness to do anything with the reader but attack him. This seems to be one of those times. It's actually a simple story about a human being transferring human hope to an essentially stupid and brutish alien aborigine. Somewhere in this welter of exclamation points and ripping flesh there's a raw sense of something conveyed from human to alien, and from author to reader.

Finally we have "Out of the Sun" by Arthur C. Clarke, who is more than commonly vulnerable to the English disease of threatening the entire world with extinction at the drop of a twinkle. Clarke uses his scientific training to justify such postulations as intelligent life at the center of the earth, or intelligent life in this case inhabiting the Sun. Having explained to us how this particular life form could exist, he then tells how it could kill us all, and concludes his short story.

If you signed anybody else's name to this story, you would get it back from the editor with a request for a rewrite. It would be an interested and intrigued letter of query to the author, and it would contain at least one compliment to the author's ability to write, as well as to imagine. But it would most definite-

ly be a request for a rewrite, so as to make this light speculation a story.

So what this book is — and it is graced not only with an intelligent introduction, but with perceptive notes at the head of each story — is another book intended to show the reader how intelligent science-fiction writers are, how soulful they are and how full of very good ideas science fiction is.

It is intended to show this, of course, in terms the beginning reader will already understand. Therefore, it does not display intelligence, soul or goodness in any of the ways in which science fiction, and science fiction alone, might display them. It displays them in terms of what the reader already knows.

This seems a fairly simple point to me: You, are not going to interest people in what they already know. This book seems to me a compilation of precisely the kind of story that makes otherwise intelligent people sneer at the field, or much worse, grant it a certain thoughtfulness, and at the same time recognize how shallow it seems to be.

Larry Niven is one of the most promising new writers around. Snappy, ingenious and

upbeat, *World of Ptavvs* (Baltantine) is the story of Kzanol the thrint, who thinks he has successfully evaded the disaster to his starship, and furthermore will be able to make ptavvs of all Earthmen. It's also the story of Larry Greenberg, whose mistake is less complex; he merely thinks he's Kzanol.

This all comes about because thrints, who flit about space and know they are superior to all other life forms, acquire status by acquiring ptavvs; that is, slaves that will, under the thrint's direction, help him exploit their own planet and anything else he can grab off. Thrints are also sufficiently ingenious so as to have stasis-suits available for times of disaster. This protective clothing it not only completely impervious to outside forces but permits the wearer to go into suspended animation indefinitely. Finally, Larry Greenberg of Earth is a rudimentary telepath, assigned to a dolphin-communication program here, who gets drafted into an ill-advised attempt to study Kzanol via an Earth-made machine which has an unfortunate effect on Kzanol's stasis-suit.

What happens is that Kzanol's personality becomes superimposed on Greenberg's. But since Greenberg comes out of the pre-

cipitating contact in better immediate shape than Kzanol does, it is Greenberg/Kzanol who goes out in the full conviction that he is a thrint with the whole world spread out waiting before him and proceeds to try to conquer the Solar System. All sorts of people set off in pursuit of him, including, finally, the somewhat baffled and justifiably angry Kzanol/Kzanol.

This is nice thinking. There have been very few stories which treat telepathy as the phenomenon it should logically be. Most mind-reading as described in science fiction sounds a little bit like another of the Bell System's services.

It's also, and not very by the way, a masterful technical device for telling a story. Instinctively masterful, furthermore. Niven, in other places, betrays the fact that he still has a few things left to learn about conscious craftsmanship. Which makes his innate talent all the more impressive at this stage of his career.

Devoted readers of the late E. E. Smith will be delighted to learn of the appearance of *The Universes of E. E. Smith*, edited by Ron Ellik and Bill Evans (Advent: Publishers, P.O. Box 9228, Chicago, Illinois 60690, \$6.00). This is a concordance to the major writings of the late Doc Smith, with an introduction by James H. Schmitz, a bibliography by Al Lewis, and, unfortunately, illustrations by Bjo. For its intended purpose, it's not only a good but an invaluable book. If there's anything you want to know about the universe in which the Lensman stories are set or the milieu of the Skylark stories, or if there's anything you want to know about where these stories may be found, and in what forms, this is the guide for you. Once again Advent has justified its existence as a service to fandom.

I think the price is too low.

—ALGIS BUDRYS

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BALLENGER'S PEOPLE

by KRIS NEVILLE

*Ballenger wasn't crazy. He only
followed simple majority rule!*

The radios in the wall came on with a click, and a moment later African drum music issued into the bedroom. Bart Ballenger was instantly awake.

He took a vote, and the consensus was it's Thursday.

He arose and stood before the window and breathed deeply. Thursday was the day to settle accounts with a lawyer on Wilshire Blvd.

Air and sunlight said spring. This, too, was verified democratically.

Ballenger completed the early morning routine against the sound of music. He moved about his two-bedroom apartment, checking. All was as the previous evening. No one had entered during the night. The smaller bedroom was in order against the arrival of guests who never came.

He sat at the counter-top divider, between living room and kitchen, eating eggs, drinking coffee. The radios around him, all switched on, played the same music as in the bedroom. He bobbed his head to the rhythm, visualized The Star Walkers. He was in love with the middle drummer, a girl named Angelique Roust.

Ballenger had seen Angelique on TV and instantly fallen in love with her. She replaced his previous love, Miss Terri Paul, flutist, a person, in retrospect, with no bust worthy of mention.

Now it seemed, over the eggs and coffee in the natural brightness of morning, fantastic that such a collection as Miss Terri Paul could have attracted even his momentary attention, much less captivated him for a single

minute, let alone nearly five whole months. He vowed against eternity that he would never, never, never show Miss Terri Paul's TV tapes again, and if he heard her on radio, he would refuse to listen. This would be proof of his love for Angelique.

He finished his coffee. The news was coming on, blaring out over the sounds of cool jazz. There were, in the world, the nations of crime and the nations of law and order; he belonged to the latter. All were democracies, whether they knew it or not, but some were insane. This was scarcely surprising when you considered evolution.

Out came the letter: *Final Notice!* The amount, including postage, was \$23.47.

"Ballenger —" began the letter, omitting the customary salutation "—your actions indicate you have no intention of paying the enclosed bill. If this bill is not paid immediately, I will be forced to institute legal action, which may involve your employer. You will be liable for all costs incurred in collection. To avoid embarrassment and the extra expense, your check in the amount of \$23.47 must be received by return mail. I mean business. This is the last notice I will send before

forwarding the bill to the California Courts for collection. F. Terrace Watson, Attorney at Law."

The bill was clearly illegal. Watson had been given every chance to prove his case and had failed dismally.

Item one: Jury trial.

Item two: Superior court review.

Item three: Supreme court decision.

All favored Ballenger. Watson did not care enough even to present his case on the appeal, and Ballenger, out of a sense of fairness, had continued the proceedings on his own initiative. Now this man, Watson, was threatening the very nation itself.

Ballenger folded the letter and replaced it in his inner suit-coat pocket. Breakfast finished, he put the dishes in the machine. Seven twenty in the morning. Normally time to leave for work. Switchboard opens in exactly thirty-five minutes. Time was a rubber band, stretching out.

He removed his credit-card receipts. We will audit the accounts this morning. Prudent financial management is the foundation of the nation. The Secretary of the Treasury was summoned.

Two dollars and fifty-nine

cents, plus tax, for a six-pack of half quart cans of beer. Five cans were still in the refrigerator. The supply would last another month. The Secretary of the Treasury waived the right to appeal and agreed the expense was reasonable. Three dollars and eighty-nine cents for dry cleaning:- an unavoidable expense. Ten dollars, thirteen cents: a lube and oil job, rotors adjusted, fuel tank filled. No argument there. Forty-seven cents for a large chocolate bar. They called in the Surgeon General on that one. To the bathroom scale. Ballenger had picked up four ounces by the scale. Back to the accounts. Let's watch that candy. Ballenger agreed.

Four dollars and ten cents, including tips, for dinner in the restaurant last night. This Wednesday's expense was sanctioned by tradition, and recent polls showed it was approved by eighty-three per cent of the citizens. Of the \$25 he allowed himself for the period, he still had three dollars plus change. Close enough. The Secretary of the Treasury was satisfied.

Snap! went the rubber band. Five minutes before eight.

Ballenger phoned the switchboard.

"Thank you for calling Meritt and Finch," said the recording.

"Space research is our specialty."

He said, "Ballenger from Accounting. I have some personal business to take care of this morning. I'll be in after lunch."

"Thank you for your message, Mr. Ballenger," said the machine.

Traffic above Los Angeles would begin breaking in another fifteen minutes. It was a twenty-minute flight to the office of F. Terrace Watson, Attorney at Law. Leave at eight fifteen, be there at twenty-five before nine.

Ballenger checked the day-shift workers. Everyone seemed at his job. Pulse was good, heartbeat steady, respiration normal. Swing shift would be going to bed in another hour. Most of the night shift probably hadn't gone back to sleep after voting on the day of the week. They should be up stirring. Should try to get all of today's major business out of the way before nine, nine-thirty, so the swing shift could get their rest.

Some sort of a proxy agreement really must be worked out, if it can be done democratically. We've got to send legislation to that effect up to the next Congress. Note: Cabinet meeting on Sunday should discuss this.

Meanwhile, one of the problems was too many important decisions. The executive himself could do something about that. Should definitely cut down on the number of major decisions, keep them to a bare minimum, try to get them all out of the way before nine o'clock. No excuse for decisions in the middle of the day. A well run country shouldn't have emergencies.

Yet the evils of dictatorships are too well known to review: an evolutionary failure of the organism. Strange so few saw this very point with the clarity of Ballenger.

Promptly at eight twelve, he buzzed the garage of his departure and left the apartment, checking to be sure the door latch was set to lock. Two minutes later, he was on the roof. The morning rush having passed, the mechanical attendant had already assembled the blades. He stepped in, and the radios came on with the ignition. He hummed in time, tapping the control bar.

Airborne, the Security Forces relaxed. Once again he had remembered to lock the door. The day-shift technicians, well rested, began to supervise the complicated motor activity connected with flying. The pilot stood at the bridge, in command, stud-

ying meaningful lights as they flashed their careful traffic patterns, responding with the necessary movements.

Ballenger again wished there were some way to introduce more automation. Perhaps he should take it up with his Scientific Advisory Group. But if the SAG could work out a way, what about unemployment, long solved among nations, but an ever-present internal danger?

No! Better to have jobs for all than to have to worry about chronic unemployment. The thing to avoid was overtime. The union was very difficult when it came to overtime. Four hours off for each hour on. Once, after a very difficult week at the office, he had spent all of Friday in bed to catch up.

The blades joined traffic.

At eight thirty, between commercials, came the newsbreak. It was the one thing he really did not like about the station. Ballenger frowned in annoyance. The nations of crime seemed to have the upper hand: an aggression in Florida, a war on the streets of Los Angeles. Incomprehensible. Pointless.

He checked again with his legal staff. There was no possible question that Watson's demand was completely illegal. There was no legal way Ballen-

ger could be made to pay. Still, this being a foreign affair, rather than a domestic one, you could never be entirely sure of results.

Ballenger had long fought a mental battle with other nations for territorial integrity. To the things of the flesh, flesh; to the things of the spirit, spirit. It was difficult to know whether or not he was being ignored completely, for no other nation ever made a sign of having heard him on this matter. He called in the Secretary of State. We'll rest our case, said the Secretary, on external law. We will negotiate, but we will not arbitrate.

Music came back on. He wished they'd play one of Angelique's records. It would be good to know she was backing him in this matter.

But of course she was. Angelique was a nation like himself: a hater of injustice everywhere. Hadn't she already proved that, time after time? Hadn't she whispered it to him over TV? Of course she supported him. With the total resources of her body.

Ballenger thought of his job at Meritt and Finch. Wisely, the citizens had expressed their will to him: never talk to anyone at Meritt and Finch unless absolutely necessary. If you don't

talk to them, we don't have to be always making decisions. You don't have to be bothering the citizens all the time, getting the swing shift out of bed with emergency votes.

So Ballenger kept busy with his punch cards and forms and rows of figures and files. Feeding the computer. Which was composed of an almost infinite number of little things going yes and no. With such uncomplicated fundamentals as that, it was a mystery the thing could even add.

And Ballenger smiled, and he answered questions, and he never went out to lunch with anyone.

Twenty before nine: a commercial. Traffic was unusually heavy. He had hovered almost motionless for nearly five minutes. Now a lane was open. The building was less than a quarter of a mile away, and he entered the descent level, checking visually. He tensed as an idiot pilot dropped too rapidly. Probably an emerging nation. What's the hurry?

Moments later, he was parked safely. He surrendered the blades to an attendant for a claim check. The check looked all right.

He walked quickly to the elevator and checked the directory posted on the wall. It told him

the enemy was on the third floor: Suite 315.

Down he went.

F. Terrace Watson was seated behind his desk in the inner office, surrounded by file cabinets, an addressograph machine, a postage meter, a voice typer and a computer with memory storage.

Watson looked up from his desk in the inner office when he heard the corridor door open. It was too early for the mail drop. Who could it be at this hour? His part-time secretary, an expensive extravagance which flattered his ego, would not be in until after lunch for the mailing, so he arose and went through the door to greet the visitor, presumably a salesman.

Ballenger stood nervously beside the vacant receptionist's desk. He was dressed in a conservative suit, a style which had not changed appreciably for the last sixty years, in contrast to the vacillation of women's fashions; he was short, had a receding hairline and weighed no more than 120 pounds.

Watson was a tall man, many pounds Ballenger's superior, with a face that was heavy from rich foods and the eyes of a dictator.

Suppose the unsupposable, Ballenger's Chief of Planning

Operations whispered. Consider every possibility, no matter how remote. A nation prepares for all contingencies. Merritt and Finch would demand an *explanation* for his refusal to pay this illegal bill.

"You are F. Terrace Watson?" he asked. "My name is Bart Ballenger."

And if Ballenger, as Chief Executive, allowed the job at Merritt and Finch to be lost, the citizens would most certainly revolt and throw him out of office. With no one to run the nation, it would become very sick.

"Yes?" asked Watson. "What can I do for you? If it's about employment —"

"You don't know me?" asked Ballenger in amazement. "You are F. Terrace Watson, the attorney?" Ballenger was disturbed by this development. How could the attorney, who had written him so many letters, each signed with a savage flourish, fail to recognize the name Bart Ballenger? There was a mystery, here. What did the Secretary of Defense think?

Watson searched his thoughts. Someone from one of his ex-wives? Someone from Ernie, trying to collect the little bit he still owed from the Santa Anita meeting? A process server?

Ballenger brought out the letter.

Ballenger had been with Meritt and Finch for eleven years; he could never find another job as good. So Watson, at all costs, must be stopped from notifying them. How could Ballenger present a legal brief to Mr. Herreras in defense of his refusal to pay this illegal bill? Mr. Herreras did not even know that he was one nation, under God, with all kinds of different people inside him, and it isn't safe to talk to fascists who don't even understand that elementary fact. Evolution decrees their defeat, but natural selection is a slow process.

"It's about this," said Ballenger.

Instantly Watson assumed the stern countenance and demeanor appropriate to the profession. "Let's see, Mr. Ballenger. I believe it's about the overdue account that you wish to see me?" He reached out for the letter and glanced at the amount. "Twenty-three dollars and forty-seven cents."

"I want to talk to you about that."

"Well, let's just step into the office, here, Mr. Ballenger. I'm glad you realize just how serious this matter is. I'm glad to see you've come down in person to straighten it out. Please sit down."

As Watson walked around his

desk to his chair, a tiny doubt opened a crevasse in his thoughts and uneasiness leaked out. In the memory of his profession, which was long and honorable, had anyone ever called personally? Not that he was aware of. This was the most mail order of all businesses, composed of fleshless names, first-class postage stamps, white paper, black print, stern taped warnings for the larger delinquents. Human breath sent it into disarray, and Watson felt uncomfortable in his own office. Let us explore the situation, which may be delicate or fraught with annoyance.

"Now," said Watson, after seating himself, "Mr. Ballenger, if you'll just let me have your check for \$23.47, we can put an immediate end to this matter, and you will be spared any possible future embarrassment and inconvenience. If the amount is a little too much for you right now, I know we can work out a satisfactory payment plan. Many of my accounts pay as little as five dollars a week. I understand how people can get in over their heads on matters like this, and I want to be as reasonable as I can be."

"It's not the money, you know that," said Ballenger, running the words together, still standing.

Watson frowned sternly. He made it a practice of ignoring all letters from accounts which did not contain money. Had Ballenger written protesting the bill? "Do I understand there's been some mistake? From the account number, here, this is for some musical tapes, isn't it? Didn't you receive the merchandise? Was the recording poor? Fuzzy pictures? If that's the case, I'll have to go back to the company with this, and if their records are in order, and if you haven't complained within the required time—" He left unspoken any direct threat.

Ballenger observed that the attorney was introducing irrelevant material. "I received the tapes, they were satisfactory in quality," he said. Diplomatic Corp personnel came forward with advice, prepared with documents. The Secretary of State cleared his throat. "I think you will have to agree, as an attorney and a specialist, that asking us to pay for these Miss Terri Paul tapes is the equivalent of demanding we pay alimony. You have no proof whatsoever that indicates we have ever been married."

Watson rolled the key to the voice typer between thumbs and forefingers. The accounts, of whom this man was one, were purchased at twenty-five cents

on the dollar in blocks of one thousand. A few were always totally uncollectable because of legitimate reasons: merchandise returned and not credited, defective merchandise, incorrect merchandise, unordered merchandise Out of this group of ten to twenty in each block of accounts, one or two might threaten legal or other action upon receipt of dunning letters. Standard practice ignored them. They had no case; the dunning letters always complied exactly with the applicable laws of the State of California.

Such people, however, were nuisances, and Watson considered for the merest instant whether or not Ballenger might be an unusually aggressive example of that type. But any suspicion that Ballenger was contemplating a law suit evaporated, and Watson saw that he was dealing, instead, with a maniac. New forms of insanity were breaking out all over, as a tragic consequence of universal peace.

The sensible thing, Watson knew, was to stand from his chair, ease the man quietly from the office, lock the door and hope Ballenger would not come back.

"You're perfectly correct, Mr. Ballenger. There is no reason for you to pay this bill. I'll see

that you're not bothered by it any more. A tragic misunderstanding for which I apologize."

Watson stood up. He moved to the side of the desk. Would more reassurance be required? It was difficult now. "I'm sure this alimony matter will work out, too," he added.

Ballenger was outweighed by one hundred pounds and was a good six inches shorter than his enemy. One equalized such contests. He looked up at the attorney. So now he was going to be threatened with alimony. What was behind that threat? He was in trouble enough already.

Better ask the Secretary of the Interior: have we ever to your knowledge been liable for alimony? The answer, in the negative, came back. Still dissatisfied, he said, This is a very serious matter; could we be liable without our knowledge? His Scientific Advisor assured him that it was completely impossible.

"I deny any knowledge of alimony," Ballenger told Watson.

"Just don't worry about anything," said Watson, soothingly.

Ballenger realized this might be even worse than he had anticipated. What would Mr. Hererras say to this? Charges were piling up too rapidly. From his own logic, which was impeccable, sprang a new accusation.

Could this man Watson know Miss Terri Paul and her sorry collection of constituents? Was there a conspiracy, had treaties been made against him, was aggression contemplated?

Watson spoke as though to a child. "You just put it out of your mind. Go home and rest. You don't feel very good this morning."

Ballenger felt panic. The Chief Medical Officer said, I'm afraid we've run into another nut, here. The world is full of such nations, they cause all the trouble.

This one, said the Chief of Security Forces, is a lawyer. Lawyers are the most dangerous of all. They can exhume treaties to the days of King John to cite against us.

Watson, looking down on the man he completely dominated physically, felt a moment of compassion. Ballenger was sick; he needed help. Watson decided to probe the extent of this post-Freudian psychosis, to divine in which direction help for the poor, disturbed man might lie. "You have some relatives here?"

"The question," said Ballenger, "is an insult to national dignity! I am perfectly capable of fighting my own wars!"

A little flicker of fear came to Watson. Against the power of

a madman, his physical advantage might be cancelled. Ballenger might be capable of hurting him and, beyond that, might constitute a larger menace. The idea, half formed, that it would be possible to reason Ballenger into seeking medical attention, vanished. No other avenue of assistance lay open to the attorney. In the absence of criminal conduct, only a relative could have Ballenger committed.

Watson could prefer a misdemeanor charge: but if the insanity were temporary, or if Ballenger could recover sufficiently to conceal it from the judge, then Watson himself, might be in an unfortunate and vulnerable legal position himself: a suit for false arrest, or worse. The thing to do was definitely to get him out of the office as soon as possible.

"Come along, now," said Watson, reaching out. "Let's walk out here in the corridor." Once in the corridor, Watson could duck back in the office, slam the door and lock it. If Ballenger stayed outside, an anonymous call to the police might then result in his detention for questioning and lead to the court sending him to the sanctuary the state provided for such disturbed people.

Ballenger shrugged off the hand. He checked to see that

all his people were awake. A crisis was near. Once the man, Watson, got him into the corridor, he would be attacked. All the other nations in the building would see it, of course, but none would come to his defense. Ballenger had made no alliances here. His alliances were with the entertainment industry, in Hollywood, in New York City, in the TV industry. They were too far away to help him now! Could they even hear his cries?

What wild charges Watson would make! And could the nation, with the best legal minds available, refute them? Watson was one of the extremely mad ones: a prisoner of the past. He had not been able to escape evolution's *cul de sac*: specialization. Watson treated all the organic components within himself with total contempt for their civil rights. Logical thought was impossible with him. Ballenger confronted a primitive organism.

So Watson was threatening to consider it as an international matter, beyond reasonable compromise. Ballenger had come prepared for that. Was all diplomacy, forever, for nothing? Make one more try at private negotiation.

"You'll never get us before the United Nations," Ballenger said.

"You know it's stacked against us; you know we wouldn't have a fair chance to defend ourselves; we're outnumbered."

Ballenger sounded the alarm. Everyone was appraised of the situation. Are you behind me, citizens? he cried. A resounding 97 per cent: yes!

Red alert! cried Ballenger's Secretary of Defense. To arms! To arms! Man the barricades! Prepare to repel the invasion!

Watson's hand came out once more. It fixed on Ballenger's shoulder. "Come along now. I think it's time for you to leave!"

The Secretary of Defense told Ballenger: He's getting ready for a sneak attack! Hurry!

Ballenger acted then. He declared a national emergency. The soldiers came forward, waves of them.

Scientists readied the missile-launcher site and took control of the panel with flashing lights.

Get out of my way! snarled the Secretary of Defense to the Secretary of State. This is exclusively a military matter, now!

Ballenger removed the missile launcher from its hidden silo and twisted to his left, firing upward, once, bang!

There was silence. The sound of Watson's body as it met the carpet. Silence.

We had to defend ourselves, he told the citizens. It was

us or them. Eighty-one per cent approved the action. The pacifists, less than ten per cent of the population, had continued that portion of the work which had not contributed to the war effort. They now returned to full participation in the society.

Ballenger congratulated the Secretary of Defense for always being prepared and put the missile launcher in his pocket.

The Security Forces took over. He had touched nothing in the office. No fingerprint problem.

Ninety seconds later, the Security Forces withdrew, and the technicians took over. He was at the control bar. The music of strings and oboes came from the radios. He looked at his watch. Just after nine. The swing shift people could get their sleep. He ended the emergency.

He asked the Secretary of the Treasury: How was that? That's the kind of war you like, isn't it? Seventy-seven cents is all it cost us this time. Seventy-five cents for parking, two cents for the bullet. I run an economical administration.

Some two hours later, when he was preparing to go to work, the Security Force people remembered the letter on Attorney Watson's desk, but by then it was too late to do anything about it but fire the Security chief.

—KRIS NEVILLE

You Men of Violence

by HARRY HARRISON

*He hated men of violence.
But how could a pacifist
resist their armed might?*

"I hate you, Raver," the captain shouted, his strained face just inches away, "and I know you must hate me too."

"Hate is too strong a word," the big man said quietly. "I think despise is much better."

There was no advance warning of the blow, the captain was too good a fighter for that; just the sudden jab that drove his fist into the other's stomach. Raver's only reaction was a slight and condescending grin. This infuriated the captain who, though a head shorter than Raver, was still over six feet tall. He expected some reaction other than scorn from the people he hit. In a blind rage he pummeled the other's unresisting form until Raver, leaking blood from nose and mouth, fell across the captain's desk, then slid limply to the floor.

"Get this carrion out," the cap-

tain ordered, rubbing at his bruised knuckles. "And clean up this filth." There were smears of blood across the surface of the desk, and everything on it had been swept to the floor when Raver fell. The captain realized then that the blood was on him, too. He dabbed at it distastefully with the kerchief from his sleeve. Still, there was some satisfaction in seeing the half-conscious bulk being carried from the room. "Now who is smiling?" he shouted after them, then went out himself to wash and change.

Though the captain did not know it yet, he was the loser. From the moment he had boarded the prison ship two weeks earlier, Raver had been planning this encounter. All of his actions, his earlier confrontations with the captain, the hunger strike when the Phreban had been tor-

tured, every bit of it had been planned with this final scene in mind. Raver had pushed the buttons; the captain had reacted as planned, and Raver had won. He leaned against the metal wall of his cell, clutching tightly to the pencil-sized communicator that was concealed by his giant fist. When he had fallen across the desk he had palmed it. This was the reason for everything he had done.

Sighing heavily, Raver slumped to the floor and rolled over on his side. It was no accident that his back was to the glass eye of the monitor pickup, or that the barred door of his cell was in sight. Unobserved — and safe from surprise visitors — he allowed himself to smile as he set to work.

He had only a single tool, a nail which he had hidden in his boot sole and filed flat against the metal side of his bunk during the night. The squared tip now made a tiny screwdriver. His hand was a vise, and his fingernails pliers and wrench. It was enough. There was no one still alive who knew Raver's real name or anything about his earlier life before he went into crime and politics, and he certainly did not look like a typical microtechnician. Yet that was what he was, and a highly skilled one

as well. The case of the communicator sprang open under his touch, and the delicate leaves of the circuits fanned out. He went to work. There were only a few hours left to setdown, and he needed all of them.

With infinite patience he disassembled the components, then rejoined them in new circuitry of his own design. He struck an arc from the tiny battery to solder the connections and could only hope that enough power remained to operate his device. It took a fraction over three hours to construct, and for all of that time he lay still, with just his hands moving, an apparently unconscious bulk to the watchers in the prisoner control center. Only when the work was done did he permit himself to groan and stretch and to climb shakily to his feet. As he went to the barred door he stumbled, then held to the bars with one hand and pressed his forehead against the cool metal. In the preceding weeks he had stood this way for a good part of the waking day, so it was not considered unusual.

His right hand, shielded by his body, slid the wire probe into the opening of the lock while he slowly turned the knob on the variable capacitor.

An RF lock is theoretically pick-proof, but that is just theory. In practice a trained technician

can cause the circuit to resonate at the keying frequency, which is what Raver did. A needle flickered briefly, and he made careful adjustments until it jumped across the dial and up against its stop. This was the operating frequency. Then he went to the sink and cleaned some of the blood from his face and at the same time reversed connections so that the probe became a transmitter.

He was ready.

When the hooters sounded the two-minute warning for strapping down he paused for a moment at the door before going to his cot, which served double duty as an acceleration couch. The device had worked: he had felt the click as the electronic actuator had tripped the lock. The door was open. Just before the landing rockets flared he pulled up his blanket and rolled over on his side to face the wall.

The rear jets kicked hard with 3G's, and the webbing of the bed stretched and creaked while Raver pulled himself slowly to his feet. This was the only time he could be sure that the guards in prison control center would not be watching him. While they were fighting the deceleration he had to do what must be done. One shuffling step at a time, he drove himself across the cell, the muscles in his legs knotted and

rock-hard. The stool's three metal legs were welded to the floor; he had examined them and felt their thickness days earlier. Dropping heavily to his knees he seized the nearest leg in both hands, tensed his body — then pulled. The leg broke with a sharp crack. The other two were freed the same way; then a slow shuffle back to the bed, onto which he put the stool and pulled the blanket over it.

The ruse would not bear close examining, but it had to fool the watching guard on the screens for only a brief time. Back across the cell to the door, through it, close it, lock it, and down the passageway. His knees crumpled as more jets cut in for landing, 5G's or more, but Raver continued on his hands and knees. He could move about safely only as long as the rockets were firing. When they cut out, the crewmen and guards would unstrap and come out, and he would be caught. Painfully and slowly he dragged himself across the passageway to the connecting ladder and began to work his way down.

The jets stopped when he was halfway down. He let go of the ladder and dropped.

Since the gravity on Houdt is less than Earth normal, and because the fall was only fifteen feet, Raver did not injure himself, although he landed heavily. He

rolled and crashed into the door with his shoulder as he came to his feet, throwing it open. Then he was through and running, heading for the spacesuit locker. All around him he knew men were unstrapping themselves and rising, on their way. A door opened as he passed it, and there was the sudden loud murmur of voices. Someone started through it — then turned back to say something.

Raver hit the door of the locker, was through and closed it and leaned against it.

There was no alarm.

Neither was there any time to waste. He took a long, shuddering breath, ignored his aching muscles and turned to the racked space suits. The largest one, with its flexible fabric stretched to the limit, made a snug fit, and he pulled it on. If he closed the helmet it would draw attention inside the ship—but if he left it open he would be instantly recognized. But the extra oxygen tanks would shield his face and serve a double purpose. The large refill tanks weighed over a hundred pounds apiece. He did not dare take more than two; carrying more might draw attention. He had to go left, so he swung the tanks onto his right shoulder and pushed the door open. When he went out he walked with his shoulder almost brushing the wall

and the tanks shielding his face.

Footsteps passed him, but he was not stopped. He went down two decks and saw the guard on the emergency airlock just as the alarms sounded. Raver walked on steadily, neither faster nor slower, though the guard jumped nervously and slipped his rifle from his shoulder and held it at port arms.

"What is it? What's happened?" he called to Raver, then turned to look down the connecting corridor. The pulsating hooters split the air. "Who are you?" the guard asked when Raver came closer. It was only then, far too late, that he tried to bring his rifle to bear.

Raver reached out with his free hand and took the man by the throat so he could not shout a warning, then pulled him close so he could not use the gun. One long finger moved up to the artery under the guard's ear and clamped down, cutting off the flow of blood to the brain. The man struggled helplessly for a few seconds, then slumped, unconscious. Raver was careful to lay him gently on the deck before he stripped him of weapon and munition pouches, slung the rifle over his shoulder and opened the airlock. There were shouts behind him as he closed and dogged it shut, but he ignored them.

“Get him,” the captain ordered, his face suffused with blood. “Bring him back to me. Kill him only if you must because I want to see him die. Do you understand?”

“Yes, sir,” Lieutenant N’Ness said, keeping his face expressionless. “I’ll need a squad of the most fit men to go with me.”

“You have them. What to you plan to do?”

N’Ness snapped open a map and spread it on the desk. He was a career soldier, and after this tour of field duty he was returning to staff college. He explained with professional brevity.

“The ship is here, near the base of the cliff, within the usual landing area. Raver can gain nothing by going towards the prison mines here — and in fact all the observers place him on a 86-degree course towards the foothills here. This makes sense. The nearest mining settlement — other than the prison — is here, on the other side of the mountains. It is operated by Puliaans.”

“The devil!”

“Exactly. If Raver reaches them they will give him sanctuary, and there is nothing that we can do about it.”

“I know what I would like to do,” the captain mumbled, clenching his fist.

“You’re not the only one,” Lieut. N’Ness said. “But Puliaa

has three times our population and five times our industrial capacity. There is nothing that we can do.”

“Yet. Some day, though . . .”

“To be sure. Meanwhile, the escaped prisoner is heading for sanctuary. He has taken two refill tanks in addition to the tank on his suit. This will give him enough oxygen to reach the Puliaan mine — but only by the most direct route. If he tries to hide or dodge about he will not make it in time. I intend to follow at once with the best men available, each carrying a single spare oxygen tank. We will be light and fast. We will capture him and return.”

“Go, then. You have my instructions.”

The squad had already suited up, and N’Ness hurried to join them. In spite of the need for speed he checked every weapon, ammunition pouch and oxygen tank before moving them out. Then they left on the double, across the plain and into the foothills, following directions radioed from the ship, heading for the spot where Raver had vanished from sight.

“I have it,” N’Ness called back. “Dislodged stones, footprints; there is a clear trail here that I can follow. Next report in one hour.” He led the squad into the mountains of Houdt.

Houdt. A ruined and gutted world with its atmosphere stripped away in some ancient cataclysm, its surface riven and its metallic core laid bare. There were heavy metals here for the taking, all the power metals that made a voyage across the light-years possible. Since there was still more than enough for all there was no competition, and the planet's surface was dotted with mines, each maintained by a different world or syndicate. The best of them were robot operated, the worst of them by human slaves.

Raver had the temperament to be neither a slave or a slave holder, yet there was no other choice on his world. He went into opposition of the established regime, and it is remarkable that his opposition lasted as many years as it did before he, inevitably, ended up on Houdt. Nor was he dead yet. Once over the mountains and down into the Puliaan settlement, and he would be safe.

The oxygen tanks were slung on his back to free his arms, and he needed his arms on these steep slopes. As he pulled himself up the face of the fissured rock it exploded silently next to him, boulders, dust and gravel billowing out. He felt the concussion through his fingertips and let go his hold and slid back down to the safety of the jagged rocks be-

low. Looking through a fissure he saw his pursuers for the first time, kneeling in an ordered row as they fired. As soon as he vanished from sight they jumped to their feet and came on. Raver went on as well, taking a longer course that would keep him out of their sights.

"We'll rest now," Lietuenant N'Ness ordered as the sun neared the horizon. His men dropped. The chase had begun soon after dawn, and the days here were twenty standard hours long. They were in the far northern latitudes where the axial tilt conspired to form a night less than three hours in length. N'Ness had considered pushing on through the darkness, but it would not be worthwhile. The climbing was almost impossible at night, and his men were exhausted. They would sleep and catch the slave before another sunset.

"A two-man guard, one hour for each watch," he said. "Stack all the extra oxygen tanks here. In the morning we'll top our tanks and see how many of these we can leave behind."

Most of them were asleep before he finished talking. He kicked the nearest one awake to help him collect the tanks, then they sat, back to back, for the first watch.

The sunlight hit first on the highest peaks at dawn, but with-

out an atmosphere to diffuse the light only the smallest, reflected part fell on the camp. The third watch, on the lieutenant's orders, was waking them up, and they were just starting to stir when the night exploded.

It was light, flame, then darkness, and the shouts of frightened men in the darkness. The lieutenant beat them into order, and the arrival of full dawn showed them that their reserve store of oxygen had been destroyed.

Reconstructing what had happened was not hard. Raver must have crept close during the night, lain there, then walked in at dawn, just one more space-suited man. He had put a bomb of some kind in among the tanks, then escaped in the confusion following the blast. N'Ness had underestimated him.

"He will pay for it," the lieutenant said coldly. "He lost his lead by coming back to do this — and he will not regain it. Fall in and check tanks."

The spare oxygen cylinders were gone, but there was still some oxygen left in the suit tanks. With ruthless efficiency N'Ness bled these tanks into his, until his was full and the others close to empty. "Get back to the ship," he ordered. "As soon as you get past these last hills use your radio. You should be able to raise

either the ship or the mine. Tell them to bring oxygen out to meet you in case you don't have enough to make it all the way. I'm going on, and I'll bring the prisoner back. Report that to the captain. Now move out."

N'Ness did not watch them go. In fact, he had already forgotten their existence. He was going to catch Raver. He was going to march him back at gunpoint. It would make the captain very happy, and it would look very good on his record. He almost ran up the slope ahead.

The lieutenant was the lighter man, he was not as heavily burdened, and he had the advantage of being the follower, not the pathfinder. Where Raver had worked his way around a difficult patch of broken rock, N'Ness went straight through, counting upon his speed and agility. He did not slow or rest, and his panting breath was echoed by the whine of the conditioning unit as it labored to remove the excess water vapor and heat. It was an insane chase, but as long as he did not slip or collapse from exhaustion it could have only one end.

Raver pulled himself up onto the broad ledge and through a gap in the rocks he could see the tall pithead workings of the Puliaan mines. He started forward, and his radio cracked in

his ear, and N'Ness's voice said, "Just stop right where you are." He stopped dead and looked slowly around.

Lieutenant N'Ness stood on the ledge above, pointing his energy rifle. "Turn around," N'Ness said, "and start right back where you came from." He waggled the muzzle of the gun in the right direction.

"Thank you, no," Raver said, sitting down and slinging the oxygen tank to the ground. "I have no intention of returning."

"Enough talk. You have ten seconds to start moving — before I pull this trigger."

"Pull and be damned. I die here or I die back there. What difference does that make to me?"

N'Ness had not expected this, and he had to think a moment before he answered. The steel edge of command was gone from his voice when he finally spoke. "You're a reasonable man, Raver. There's no reason to die out here, not when you can live and work"

"Don't act stupid. The role doesn't become you. We both know that mine slaves are there for life — and a short life at that. There'll be no more chances to escape. You're the paid killer. Shoot."

N'Ness estimated the reserves in his tank and the spare Raver

carried and sat down himself. "You can leave out the insults," he said. "I may have killed men in the line of duty, but I've never tortured or butchered people the way your so-called Pacifist Party"

"Stop," Raver ordered, lifting his hand. "You're a victim of your own propaganda. It's all lies. We do not kill. Think for yourself, if you are able to. Have you ever seen any of the atrocities committed that you speak about? Other than by your own people, that is."

"I'm not here to argue with you"

"Unsatisfactory, try again. Have you seen these things?"

"No, I haven't. But that's only because we shot first and fast before they could happen."

"Just as unsatisfactory, Lieutenant. You are avoiding the truth. You kill, we do not. That is the basic and important difference between us. You are the animal heritage of mankind, we are its future."

"Not so holy, please. You attacked the guard on the ship, and last night you tried to kill me and my men."

"That is not true. I do not kill. I rendered the guard unconscious, and I used the guard's rifle and ammunition as a bomb to destroy your oxygen, to force you to turn back. Was anyone injured?"

"No, but —"

"Yes, but," Raver said loudly, jumping to his feet. "That is all the difference. Our aggressive traits brought us to the top of the animal kingdom, now we must renounce killing if we are to progress. We have this violence within us — I don't deny I have it myself. But what good is our intellect if we cannot control it? Any man can desire a woman he sees in the street or jewelry in a display window, yet only the sick men rape and steal. We all possess the capacity for violence. Only the sick man kills."

"Not sickness," N'Ness said, wagging the gun in Raver's direction. "Just good sense. This wins arguments. The sensible man knows he can't fight a gun, so he gets one himself and evens the score. That's something you people will never learn. We always win. We kill you."

"Yes, you kill us in great numbers, but you cannot win. You do not change a man's mind by eliminating him. What do you do when everyone is on the other side? Shoot them all? And after you have killed every man, woman and child — what do you do with your world?"

"You're being stupid now. This has been tried before, and whenever the leaders are killed the mob does what it is told."

"Then there is something new

come into the universe," Raver said quietly. "Perhaps it is the next development, homo superior, a mutation, men who are constitutionally unable to kill. This is not my theory, there have been scientific papers written on it"

"All nonsense!"

"Not really. Look at what happened on Puliaa."

"Propaganda. The Pacifist Party there may be temporarily in power, but watch what happens at the first sign of trouble."

"They've had their trouble, and they've weathered it well so far. And it is truth that a worldwide non-violent rebellion put them into power. It is what everyone wanted."

"Lies!"

"I doubt it." Raver smiled. "You can't ignore the fact that the entire planet is now vegetarian. Something happened. Why don't you look into it before it is too late? I'm not the first one to believe that those who live by the sword die by it."

"That's enough talk," N'Ness said, standing. "You'll come back with me now."

"No."

"If you don't come I'll shoot you down, now, and send men for your body. You have no choice."

"Would you do that? Just pull

the trigger and kill a man? Remove a life for no reason? I find it hard to imagine, I am incapable of such an evil act."

"It is not evil — and I have good reason. You are an enemy, I have orders."

"Those are not reasons, just excuses. An animal kills to eat or in defense of its own life or the lives of others. All else is corruption."

"One last warning," N'Ness said, aiming the gun steadily at the other's midriff. "Your arguments mean nothing. Come with me or I shoot you."

"Don't do this to yourself, Lieutenant. Here is a chance rarely offered to your kind. You can stop killing. You can go with me to Puliaa and discover what it is like not to be an animal. Don't you realize the raper rapes himself? Who would want to live in the head of a rapist? So does the killer kill himself, and this

is probably the only kind of killing a man of peace can understand. We do not like it, but by necessity we accept it. Only when your kind is gone can my kind make this galaxy the place it should be."

"You fool!" the lieutenant shouted. "You're dying, not me! Your last chance."

"You will kill yourself," Raver said calmly.

The lieutenant's lips pulled back from his teeth, and he shouted with rage as he pulled the trigger.

The gun blew up, killing him instantly.

"I'm sorry," Raver said. "I tried to tell you; during the night I fixed your rifle to explode. You should have come with me."

Head lowered with sorrow, Raver turned and walked towards the mine visible below.

—HARRY HARRISON



FORECAST

This month's editorial makes a flat prediction: interstellar travel within the lifetime of most people now alive. In the next issue we have for you a "model" — that is, a science-fiction story — constructed around that prediction. In **To Outlive Eternity**, a voyage is under way to a nearby star. But . . . even interstellar space is not altogether empty. And what happens when a vessel traveling at sub-light speeds hits even the most tenuous of gas clouds?

Poul Anderson has the answer; and it's in next month's *Galaxy*, with a Gray Morrow cover from a story by Roger Zelazny called **The Man Who Loved the Faioli**. There's a complete short novel by Larry Niven, **The Adults**. Willy Ley brings us some honest-to-Plato real new information on that hoariest of legends, Atlantis. And lots more . . .

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Max Shulman started writing because ". . . it was write or bust." Faith Baldwin, after 80 novels, still says: "I've never written exactly what I dreamed I'd write . . . you keep on trying." Successful authors like these know that this restless urge for self-expression is perhaps the most important ingredient of writing success. But, they realize it can waste away if you don't know how to get started writing, or if you hesitate to try.

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